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AMSTRAD ACTION

ISSUE No.92
May 1993
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BooTracker
Balloon Buster
Syntax

Amstrad CPC 464, CPC 6128, CPC 464 Plus

AMSTRAD ACTION

Worth £20!

BooTracker

CLASSIC COLLECTION

SYNTAX

Balloon Buster

MAY 1993

Soundtrakker
Make beautiful music



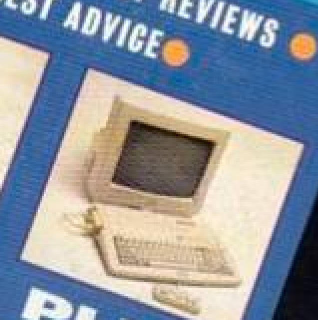
Bart 'n' Bully inside!
And the zany platform fun returns with Rodland



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CPC



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Line u



Main feature



Meet fluffy animals and kill them – page 48.

Frivolous



Bully's there, but where's Jim? – page 44.



And you'll believe a Bart can fly – page 45.

up

Regulars

CLASSIC COLLECTION

Hurrah – it's back. The new-look AA Classic Collection makes its triumphant return with three absolute smashers. Make some music, play some games. It can't fail.
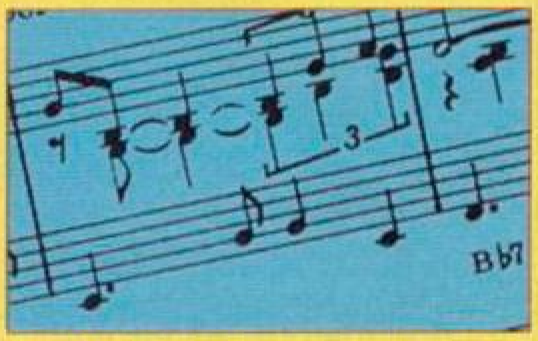
1 BooTracker

If music be the food of love, play on; give me excess of it.

In fact if music does be the food of love, you're going to have the best-fed love on your street this month.

The reason? Well we've only gone and got BooTracker for you. It's a totally ace music package that'll let you record your own tunes right there on your CPC.

You've heard the new Depeche Mode album, right? Well that was recorded entirely using BooTracker and an old radio cassette in Dave Gahan's mum's garage. (That's not strictly true, is it? – Ed) Well, not as such. But they would have used



BooTracker if they hadn't been major recording artists with loads of really expensive equipment and a huge budget for expensive studios and producers and stuff.

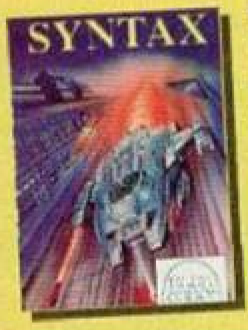
But if you want to make music on your CPC, we've given you absolutely everything you need except talent – you have to bring your own.

2 SYNTAX

Last month we tried to encourage you to polish up your tactical skills with a few games of that old classic, chess.

Well enough of that elitist intellectual nonsense, it's time to get back to our primitive roots and kill loads of stuff.

There's an alien invasion going on or something but that's not important right now. All you need to know is that you've got to fly fast and shoot anything that gets in your way. None of that namby-pamby 'let's sit down and talk about this like civilised people' nonsense. Kill, kill, kill, and then kill some more. You'll feel better for it.



3 Balloon Buster

Puzzle games, eh? Doncha just love 'em? This one's particularly appealing, concerning, as it does, the adventures of Buster the Clown and his balloon bursting activities. Laugh? Yes we did, thank you.

If you thought clowns were just people who dressed in baggy clothes, wore amusing make-up and performed slapstick comedy then, er... well you'd be right, actually. But Buster has another mission in his clownish life – he loves to burst balloons. But he can't do it without your help. Go on, make an old clown happy.

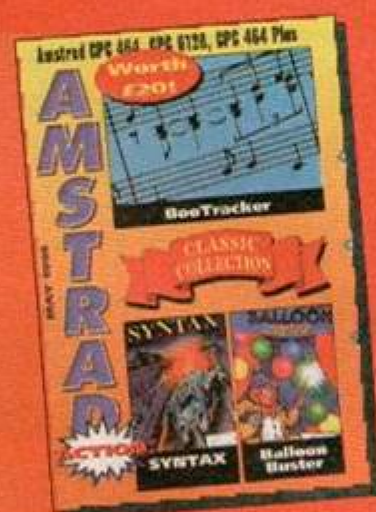


Tasword Problems

If you're a 464 owner and you couldn't get Tasword to load turn to page 56 for the complete solution to all your problems. We're really sorry about all the aggravation – we promise not to let it happen again. But still, eh? All's well that ends well, as they say.

Just turn the page for all the details ➡ ➡ ➡





BooTracker

Right folks and folkesses, this month we've got a utility for everybody to use. It's called BooTracker, and it's a complete sound tracker package by a certain Simon Forrester.



Programmer Simon Forrester in self-indulgent photo. Mr Forrester is 94.

BooTracker

With this software you'll be able to produce high quality soundtracks for use in your own work, by using the interrupt feature provided, write tunes with the easy-to-use track editor, and create new instruments with the extensive sound editor.

Using Boo-Tracker

The program itself is of a menus design, using the up and down arrows to pinpoint an option, and SPACE to select it. At all times, pressing ESC will take you back to the previous menu, and so if you press it enough times, you'll eventually return to the main menu.



It's no good just sitting there staring at the page. Load the program and get creating.

How The System Works

Tunes are constructed in blocks of notes called sequences, which contain a riff likely to be repeated throughout the tune, though not necessarily. These sequences are then tied together and given a running order, and so a tune may be built up from simpler blocks, without re-typing repeated sections, etc.

Each sequence contains 64 steps, each step consisting of either silences, sounds, or a mixture on the three channels. There can be 16 sequences in total, with a running order of 256 items. This means that these 16 sequences can be repeated and played in various orders, without lengthy re-writing. The lengths of the sequences may be altered, allowing various time signatures, not just 4/4.

The actual notes sounded can be played on different instruments, of which there are 14 in total. These instruments are defined with sound and envelope waves, using the instrument editor provided.

If all this seems a little daunting, there's already a music file on the disc as an example of what can be done. You might also find it interesting to try re-arranging the sequence order, to produce a slightly different tune (in other words, do a remix). If you wish to hear the original, the tune is a cover of a song by Metallica and its called Master Of Puppets.

Incidentally, all machine code, graphics, documentation and stuff is copyright of Boo The Ghost and Simon Forrester.

The Main Menu

This comprises the following main options:

Edit	Instrument
Manual	Channels
Filing	Play

Edit

There are three options on the edit menu:

Tune

The Instrument Editor

The music you write will quite obviously need instruments to play it, and so you will need to design some. Failing this, you can use the quick start file already sitting on the disc. The instrument wave system is compatible with BASIC, so for the actual nitty gritty of building instrument waveforms, I'll refer you to your manual. I'm quite sure it can explain things a whole lot better than I can!

Anyway, you can define two waves – tone, and volume. I suggest you concentrate on your volume envelopes for now, as the tone envelopes are only used for pitch bends.

Right. You can move over the value to change with the cursor keys, and change that value with the following keys:

Q – Increase value	I – Next instrument
A – Decrease value	K – Previous instrument
[– Increase noise	SPACE – Test instrument
] – Decrease noise	ESC – Peg it back to the menu

The noise (or distortion) factor can only be changed on the volume editor, as it seemed pointless to provide the option twice.

Actually, this seems a little complex right now, so use the quick start file (Funnily enough, this is called QUICK) 'till you get the gist of things. Basically, take the parameters out of an ENV command in BASIC, and throw them into the instrument editor.



It's all very straightforward, and you'll be able to work it out very quickly.

Using Your Tunes

Right. Once you've written your tune, you'll want to do something with it, won't you? Yes, you will. Nip along to the filing menu select COMPILE. After giving a filename, the machine will pause for a few seconds, then save out a file to disc. This file will have a .MUS extension as opposed to .BOO, so there's no danger of accidentally getting it mixed up with your normal music files. Anyway, these files can now be loaded into
your own programs by using the following few lines of BASIC:

```
MEMORY &7FFF
LOAD "filename.MUS",&8000
CALL &9A90
```

This will load up the tune and start it playing. To stop it, you must issue the following command:

```
CALL &9A93
```

One important thing to note is that tunes will only fit into memory if all ROMs are switched off. For those of you who are panicked by this, really, the only reason is that if HIMEM is below &A000, the tune code will be damaged.

Sequence
Timing
Test Sequence

Tune
This option is the main bulk of the package itself and will be entered into in more detail later.

Sequence
The actual order of the sequences can be determined by using the up and down cursor keys to select the slot position, and the left and right cursor keys to select the sequence number.

Timing
Using the up and down cursor keys, the number of beats per second can be altered in the range of 1 to 10, 10 being represented by the letter A.

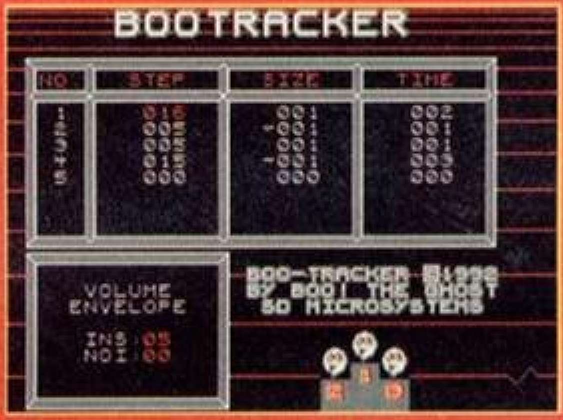
Test Sequence
This plays the current sequence being edited, as opposed to the entire tune.

Manual
Using the various keys (see quick keypress chart later) you may test instruments and devise tunes using this manual play option.

Filing
This deals with the loading and saving of tunes. Memory problems in making it 64k friendly, mean a catalogue option can't be included.

The *Boo* files can be compiled to run from BASIC, and this will be explained in more detail later on. Incidentally, facilities are present for using Boo files from machine code.

Channels
Channels may be toggled on or off by pressing the channel number. A silent channel is signified



Just create an instrument for yourself by fiddling around in this menu. It's simple.

by the ghost on the particular pedestal position closing it's mouth.

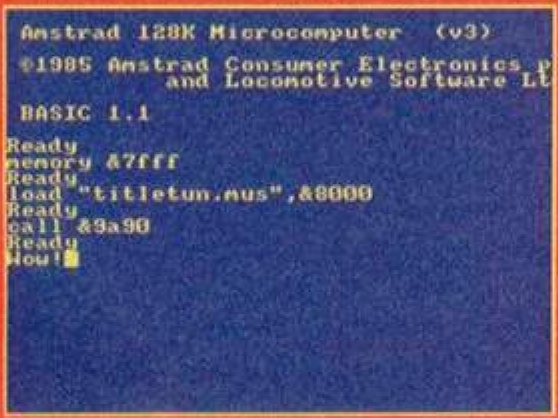
Play
This option quite obviously deals with playing your tune. Pressing ESC will return you to the main menu. It also shows up any errors in your tune – missing sequences, etc.

The Tune Editor
This is the main option and will allow you to actually compile your tune. This is done by moving the cursor over the position at which you wish to enter a note and keying that particular note. The note will then be inserted, moving all other notes forward one place. The notes are arranged in a keyboard octave, like this:

W=C# E=D#   T=F# Y=G# U=A#
A=C S=D D=E F=F G=G H=A J=B

Cursor keys are used to move the cursor (no, really), and with CTRL depressed, the UP and DOWN keys take you to the start or end of your tune. There are several other keys that can be used in order to edit your tune with ease:

O – Increase octave
I – Use next instrument
L – Lower octave
K – Use previous instrument
P – Edit next sequence
@ – Lengthen sequence
: – Edit last sequence
; – Shorten sequence
ESC – Return to editor menu
SPACE – Leave blank space ●



You can use this machine code call to play your tune, either in BASIC or machine code.

Read this right now – it's important.

Just pop the tape into your machine, making sure it's rewound to the start of Side 1, and then press CTRL + ENTER (or type RUN""), then press any key and the tape will start loading.

Within a few moments you get a menu screen. Choose the program you want using the Spacebar, then hit the RETURN key.

● Note that none of the programs need be loaded directly from the main menu. They can all be run from BASIC. The menu lists them, but you must quit back to BASIC to run them. (Use the RUN"(filename)" command.)

● If you have a disk drive either built into your machine or plugged in, you will first have to type |tape to switch the computer to tape loading. You get the | character by pressing SHIFT+@. Then just proceed as normal.

It doesn't work?
We go to great lengths to make sure that our covertapes work properly. However, if you still have difficulty, try this:

● Loading at several different volume levels (if you're using an external tape recorder) ● Cleaning the tape heads. This can be done with any commercially available cleaning kit ● Adjusting the cassette recorder's head alignment. The alignment screw is located just to the left of the tape head, and is usually accessible through a small hole. Turn it a fraction at a time with a jeweller's screwdriver. When the crispest sound is heard, the alignment is spot on. ● Tapping the cassette gently against a table edge – the spools may be sticking or jammed.

If you still can't get the tape to load then send the tape, along with a brief description of the problem and a sae to:

**AA92 Covertape Returns,
Ablex Audio Video Ltd,
Harcourt, Halesford 14,
Telford, Shropshire
TF7 4QD**

Want it on disc?
The covertape contains its own tape-disc copying program. To transfer the programs to tape, simply follow the instructions on the tape.

● 464 owners with external 3-inch drives will have no problems, but 6128 owners will need a cassette player with a REM socket. Stopping and starting the tape manually is difficult.

● 6128 Plus owners who've had their machines modified to load from tape can transfer the programs to disk, *but must rewind to the start of the tape again before the transfer starts.*

You can also order a disk version of the covertape from our duplicators, Ablex. Snip off the coupon on the corner of this page and send it with a cheque/PO for £2.00 to:

**AA92Disk Offer, Ablex
Audio Video, Harcourt,
Halesford 14, Telford,
Shropshire
TF7 4QD**

And if you're a 464 owner who had problems with Tasword last month, turn to page 56 where you'll find the complete solution to all your problems. We're really, really sorry.

Disk 92 Token

Balloon Buster



Following the line of corny phrases, it is with great honour that AA presents a ground-breaking new concept in computer entertainment – a pop-'em-up! What, we hear you cry, the hell is that, then?

Think of it from Buster the Clown's point of view. He's happily minding his own business one day, when suddenly he gets bundled into the boot of a Bentley, and rushed off into the night. He travels for miles, not able to tell which direction the car was travelling.



This is Buster, everybody. Say 'Hello, Buster'. Look, he's waving at you. Hurrah.

Suddenly, the sound of the car wheels vanished. They were no longer on the road. Grass, maybe? But the next thing Buster knew, the boot was open, and he was roughly dragged out and upright in a circus field.

"Where am I?" asked the terrified clown.

"Shaddapp and get bursting," replied the rough voice.

"Bursting?" asked Buster, until he looked up. Above him was a roof full of balloons, ripe for destruction. "How? Why?" he asked in a panicked voice.

"Use your imagination. And if you want to live, don't ask any more questions." The villainous crook had cut him short.

So Buster got to work. He found a ball in his pocket, and began to work out what to do. After a few minutes he realized that he had to hit the balloons in a coloured sequence, that ran red, green, yellow, and then blue. He managed to move left and right using the 'Z' and 'X' keys, and increase the power of his throw using the 'ENTER' key. He could also turn around by pressing 'SPACE'.

He worked through the night, bursting the balloons, working out how to complete each level without breaking the sequence, and losing one of his three lives (mystical clown, this Buster).



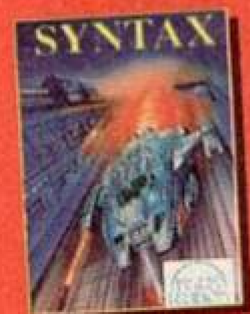
Buster's a simple soul and he likes nothing more than bursting a few balloons...



...well, obviously he's quite fond of opera too, and French cinema, and literature...

He had ever such a good time, and never wanted to go home. Instead, he took out a lifetime's subscription to Amstrad Action, as he was forever in debt with them for giving him the opportunity to pursue such a wonderful leisure activity. *(Nurse! The screens. – Ed)*

SYNTAX



After a twenty-year war has ravaged planet Earth, the rebel forces have retreated to the planet *Syntax*.

For twenty years the rebels have planned to capture the Earth. Now, at last, they have the ultimate weapon – a computer controlled sub-atomic disintegrator which requires all the energy that the molten core of *Syntax* can provide.

But their efforts have not gone unnoticed and the Flight Commander of the Air Force's top squadron of impulse-drive fighters is calling for volunteers for the ultimate suicide mission.

In a weak moment you volunteer and wake up to find yourself in the briefing room.

"Our Inter-Planetary Intelligence Group calculate that these crystals, dotted around the plant's surface, can be used to force radio-deactivity into the planet's molten core and that this will be enough to bring their plans to an end!," you suddenly hear.

"We have spotted ten crystals and ten ventilation shafts – so there is nothing to spare. We have also observed that any foreign body entering a shaft causes a damage-limitation shutter to close automatically. This should help in your task!"

"Good Luck"

Your task is to collect all ten crystals and drop them into the ten ventilation shafts.

You have three flying heights – low, cruise, and high. To collect a crystal you fly over it at low altitude. Blue buildings are too high for low altitude flying, and radio-active buildings must be flown around.

You have two weapon types. CRT rays which destroy all nearby rebels – only three are carried on your ship. Laser fire available for continuous fire but with a limited fuel supply. Lasers can be recharged by flying low over ammo-dumps.

By flying over smart-bomb factories you can trigger a chain reaction which will destroy all close rebel life forms within range.

Your ship uses impulse fuel and the rebels have stupidly placed recharge units on the planet's surface which you can use by flying low over them. Your computer presents a head-up display showing altitude, fuel status and position.

You can control your ship with a joystick, and use ESCAPE to pause, DELETE to abort, and TAB to restart. Happy killing. ●

Value for money

Following the release of issue 91, with the covertape of *Tasword*, the response has been overwhelming. They can be classified, however, into three categories:

1. You love it
2. You have it
3. It doesn't work

We've done our utmost to put everyone suffering from 3 on the right track, and we're very sorry about all the hassle.

We promised to give you a top-notch serious utility and a decent game or two every month. We did and we're not going to go back on that promise.

Be honest, would you rather have a load of games and a few POKEs for games you haven't even got, or some really useful serious software? We're giving you the chance to expand your software collection with some serious stuff.

We've proved there's more to life than POKEs and type-ins.

Amscene

Amstrad happenings, opinions and blah



Hello again

Well, here we all are again. I'm supposed to get involved in some hard-sell here – tell you about how fabulous the magazine is, all that sort of thing. But you already know, don't you? And anyway, there's not really much space.

Instead, I'll just say thanks for welcoming me to your mag and for all the nice things you've said. Thanks, too, for all the whinging, whining and moaning – it's good to know you've got an opinion, even if it's a completely miserable one. No really, thanks.

New Amstrad gadget

We've had an early look at a new electronic organiser from Amstrad. It's called the PDA 600 Pen Pad and it could well be utterly fabulous.

Instead of using a keypad to enter your appointments, addresses and phone numbers, you write them in. The screen is touch sensitive and the built-in software recognises your handwriting.

As soon as we can get hold of one, we'll give you the full lowdown, but if it lives up to its promise it could be the next best thing since, er... since something jolly good, anyway.

Future Entertainment Show

Remember last year when there was the Future Entertainment Show in London and then GamesMaster Live in Birmingham and everybody got confused because they didn't know which one to go to? Well they've solved all that confusion because later this year (from 11 to 14 November), the two events are going to be combined in one massive event at Olympia. It'll be called the Future Entertainment Show and it'll be fab. No, really.

SD Microsystems

A few of you may have been slightly un-nerved by the very sudden disappearance of SD Microsystems recently. We are at present attempting to find a new contact address or phone number at which they can be reached, and in the mean time, could anyone who is still awaiting products, etc, remember that they can no longer be contacted at SD Microsystems' previous address.

Logon Logoff

French demo team, Logon System, recently announced that they're leaving the CPC. This is apparently due to the attitude of the other CPCers on the scene, ripping music from their demos *(Erm... – Ed)*, copying of the software by their fellow programmers , and generally getting stuck in the average demo writers rut. *(So what? – Ed)* Good point. Cheerio Logon.

Free Plug

A blatant free plug has been requested by DMP Computer Software, who offer cheap software on tape or disc, for normal or plus machines. Their address is:

Derek Payne, DMP Software, 89 Wolverhampton Road, Codsall, Wolverhampton, England, WV8 1PL.

Printers

Citizen have just announced the release of their new Swift 90C, a 9 pin colour dot matrix printer, due for release in April. The printer will cost £219 plus VAT, and a black and white version (The Swift 90) will go for around £199 plus VAT. It is claimed to fly at speeds up to 216cpi, and make less noise than a normal person talking (or Simon whispering).

You can find Citizen on (0753) 584111.

Pipeline

Since the Pipeline tutorials review a few issues back, Robin Gilbert has added a few more titles to the collection. The extra titles are 'The World Of Sprites' and 'Techniques In Demo Writing'. Pipeline are also offering a range of BASIC tutorial packages, so contact them now on (0656) 740741.

Programmers...

Written any software recently? Feel like getting a project? Campursoft are on the look out for new programmers to add software to their collection, and they want to hear from you. Simply send an example of your work along to Campursoft at 16 Slatefield Street, Gallowgate, Glasgow, B31 1UA. They can be phoned on 041 554 4735.

Having problems?

Do you have trouble getting hold of your regular copy of AA? Just fill in the form and pass it to your newsagent.

MAG*SAVE

I want Amstrad Action!

Dear Newsagent, could you please order me a copy of *Amstrad Action*, starting with the June issue, out on May 27th. *Amstrad Action* is published by Future Publishing, and you can order it from your wholesaler. Thanks.

My name ....

My address ....

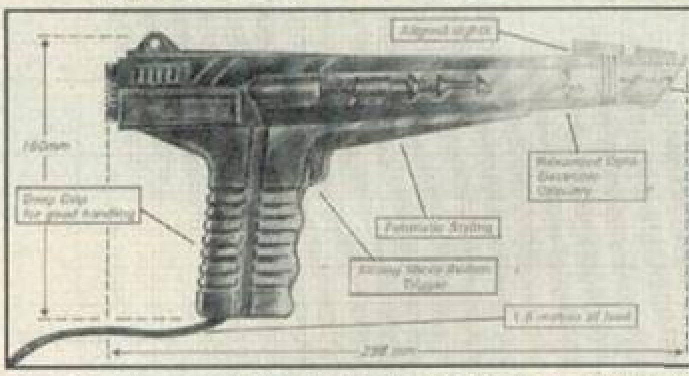
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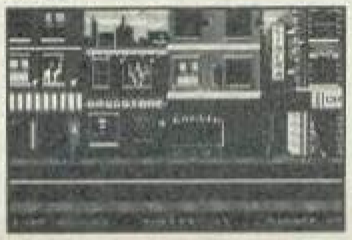


Enter a new phase in computer entertainment with the Trojan Phazer. A challenge of skill and accuracy for all ages. Unleash your imagination!!!

Phazer Gun plugs straight into analogue port (next to joystick port). Comes complete with SKEET SHOOT CARTRIDGE.



SKEET SHOOT consists of 6 levels, each broken up into two normal rounds and one bonus round. See games review in Amstrad Action - Feb '93



ENFORCER CARTRIDGE. Your job is to gun down the bad guys as they pop up, but not civilians.

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Prices include VAT, postage and packing

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Total Recall	£6.99

COMPILATIONS

	CASS	DISK
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CITIZEN 1200	£3.75	£7.00	£16.25
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Soundtrakker

Sentinel Software ■ £24.99 ■ See below for contact

A new sound tracker arrived, so Tim Norris went rooting about in his music collection and got down with some funky Bach.

The Hills Are Alive

Instruments can be created and edited using a fairly straightforward system.

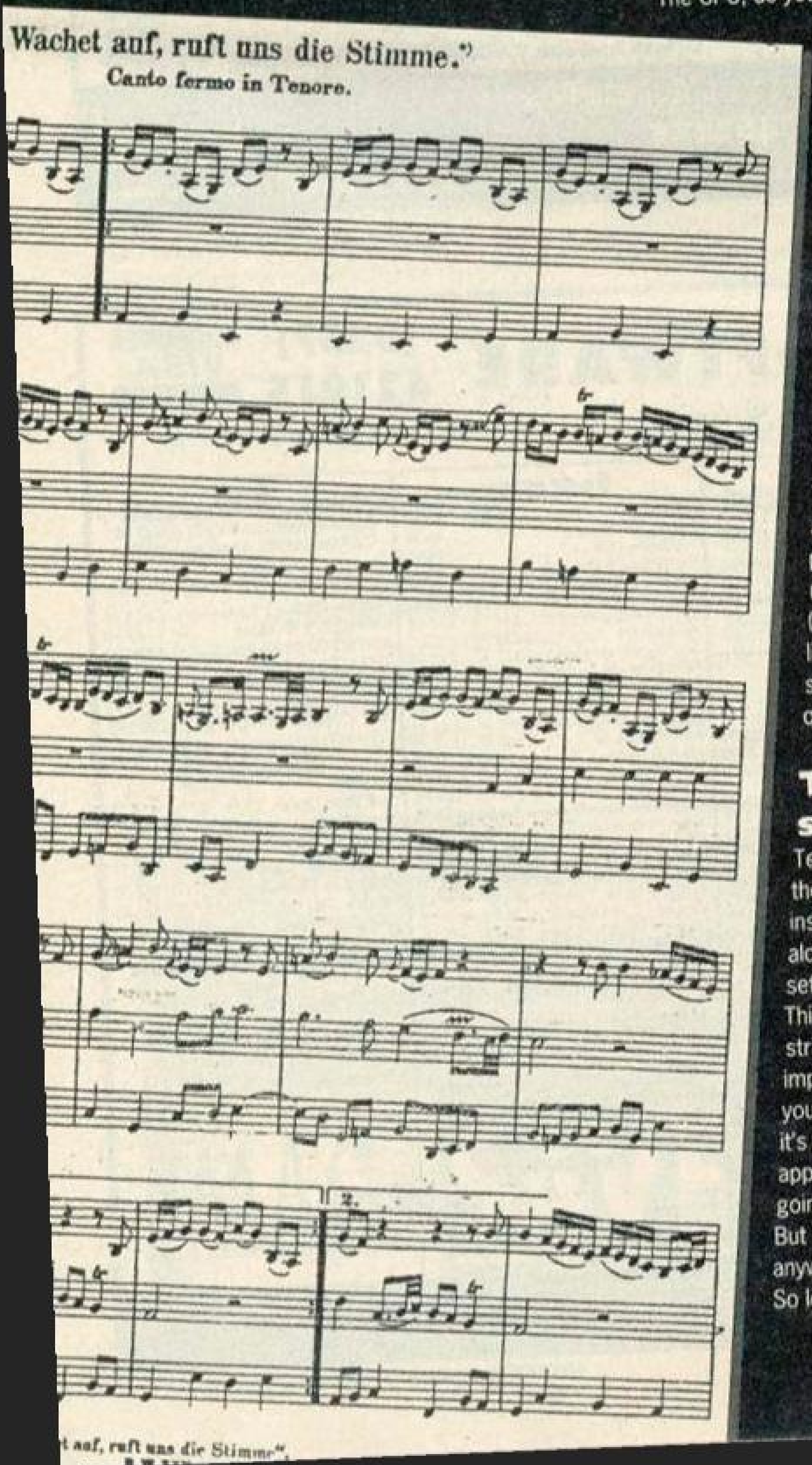
You get a couple of windows in which to jiggle about with the 'envelope' of the sound (the way the volume of the sound changes over time) so you can have smooth sustained sounds, short staccato sounds, sounds that go wwwwwwaaaaaaaaahhhhh – whatever you want as long as you only want them to be variations of the standard CPC tone-type sound. You can add noise as well, and the noise can be controlled in the same way. Mixing them together can produce a broad(ish) variety of moderately pleasing sounds.

There comes a time in everyone's computing life when they realise that there's more to all this lark than just playing games and writing letters to the bank. Sooner or later we all wonder what we could do with the machine's musical capabilities. What do you mean, you've never wondered about that at all? Get wondering, it's interesting.

Soundtrakker is a French-designed music package that allows you to create instruments, program tunes and save them to disc, either for fun and amusement or for use at a later date in, for instance, your games.

The CPC, as you may be aware, has three sound channels. This means that when you're programming music and effects you can have three different things going on at once. In musical terms, this allows you to have a melody and two accompaniment parts, and in *Soundtrakker* you have access to all three.

Tunes are recorded in short sections, (either one step at a time or in real-time) and these patterns can then be linked together to form whole songs. The pattern lengths are adjustable so that you can program tunes in any of the more common time signatures (mixed time signatures may be a little more tricky) and are sufficiently long that you can use quite short note values.



Time is on my side

Tempo is adjustable, but only in the roughest terms. You can't, for instance, adjust it so that it plays along with some other source, or set it to play at a definite speed. This is okay for game tunes, where strict tempo isn't actually all that important and faster or slower is all you're ever really going to need. But it's no good for serious musical applications and you're probably not going to write a number one hit on it. But you weren't going to try that anyway, were you?

So let's get down to specifics. You're supplied with a set of basic instruments (which you can edit, if you wish) or you can easily create your own. So you load up a couple of sounds and get settled down for a serious programming sesh.

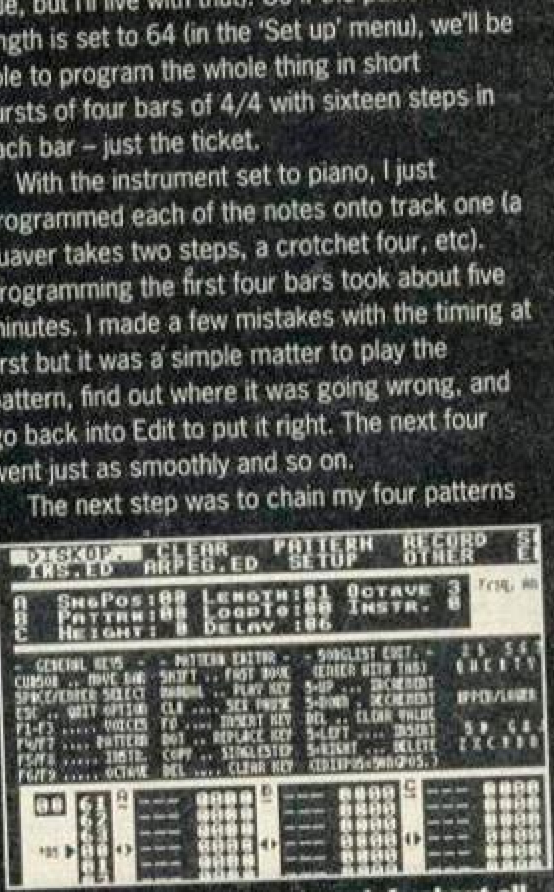
Bach to basics

I decided that writing a tune of my own wouldn't really test the machine's capabilities (I have absolutely no talent) and would take far too long, so I thought a bit of Bach would do the trick. I chose 'Wachet auf, ruft uns die Stimme' (the Lloyds Bank ad tune), because it's got a nice twiddly melody, a moving bass line and a left hand part you can ignore (I wanted to put some drums in on the third track).

So off we go. I loaded a piano as instrument 1, a bass drum as 2, and a snare as 3. Using 'Edit' mode, I set to work programming the melody. The tune's in 4/4 time and the smallest note is a semi-quaver (actually, that's not quite true, but I'll live with that). So if the pattern length is set to 64 (in the 'Set up' menu), we'll be able to program the whole thing in short bursts of four bars of 4/4 with sixteen steps in each bar – just the ticket.

With the instrument set to piano, I just programmed each of the notes onto track one (a quaver takes two steps, a crotchet four, etc). Programming the first four bars took about five minutes. I made a few mistakes with the timing at first but it was a simple matter to play the pattern, find out where it was going wrong, and go back into Edit to put it right. The next four went just as smoothly and so on.

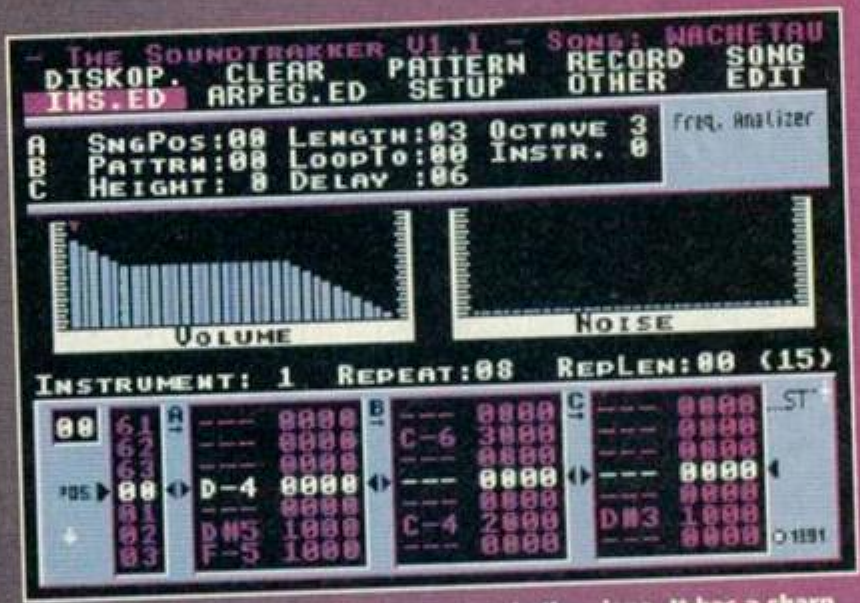
The next step was to chain my four patterns



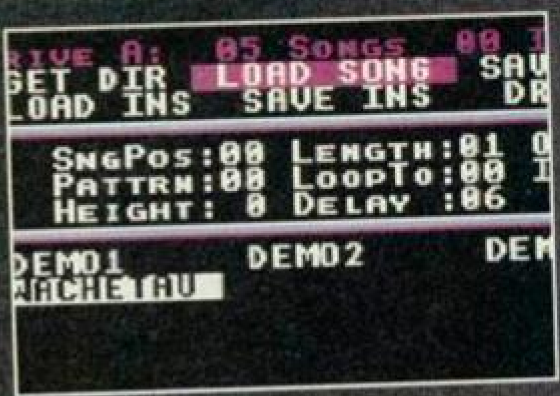
On the main screen you have info about all the command keys for all the functions.



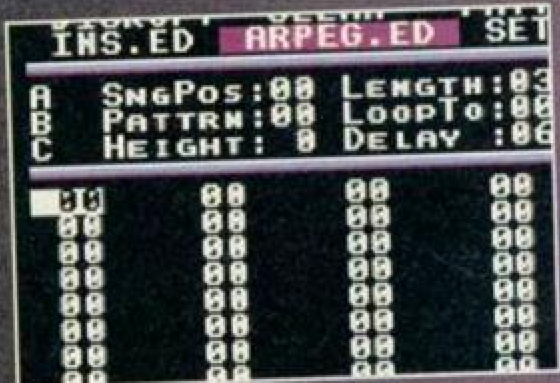
The Bach starts on the last half beat of a bar with a B flat (in window A). The first beat of the next bar is two steps down.



The sound editor. The sound on display is the piano. It has a sharp staccato attack, holds for a short while and then fades quickly.



You have full access to everything on your disc (including some dodgy demo tunes).



The arpeggio editor allows you to, er... edit arpeggios for inclusion in your tunes.

together to form the whole of the first 16 bars of the piece. Piece of cake. Simply go to the Song Edit menu and write the number of each pattern in the relevant box. This means, for instance, that if the piece has a repeated phrase, it's easy to simply tell the machine to play it twice. Anyway, I'd just programmed it straight so the step 01 was pattern 00, step 02 was pattern 01 etc.

Adding the bass line was simply a matter of editing the patterns and programming it onto track three. But why, Tim, didn't you use track two? Ah, yes, well you see, it's all in stereo. Track one goes to the left, track two to the middle and track three to the right. There was method in my madness.

Next up was the drum pattern. I wanted a sort of hip-hop groove thang, so it was a simple matter just to bung a snare drum on the off-beat.

Use it

When you've written your masterpiece, you might want to use it in your new game.

There are full (easy to follow) instructions in the manual and the program will help you too.

It'll be less scary if you have a little machine code knowledge, but even without it it's a piece of cake.

The advantage that Soundtrakker has over other similar programs is that using the Compile option, you can load the tunes into the machine's memory and they'll run on their own while you do stuff elsewhere in the memory. It doesn't sound like much but it's dead important if you're one of those programmer types.

But how does the bass drum pattern go? No problem, just put the program into Record mode and program the bass drum in real time. All I had to do was set the thing running and stab at the relevant key whenever I wanted the bass drum to sound. Once I'd got it just as I wanted it, I was able to copy the rhythm in Edit mode for the other patterns.

Within a little over half an hour's fiddling about I'd sorted out sixteen bars of eighteenth century German musical fun, complete with a hip-hop groove. Isn't technology wonderful?

So simple, even the cat...

It was surprisingly simple to program. Much simpler, for instance, than the sequencer I usually use, and chaining the four patterns together to form a song was even easier.

Everything you need to know is there on screen (all the command keys are listed for you). In fact, when I first sat down with the program we didn't have any instructions at all and I still managed to persuade it to play me some music.

That's definitely the mark of a good piece of programming – something you can use straight away without having to refer to a complicated (and usually badly-written) manual.

The end result of my Bach experiment was pretty groovy. People wandering past the AA office popped in to find out what was going on and the whole thing was judged to have been something of a success. Just think what I could have achieved if I'd written a fab new tune of my own.
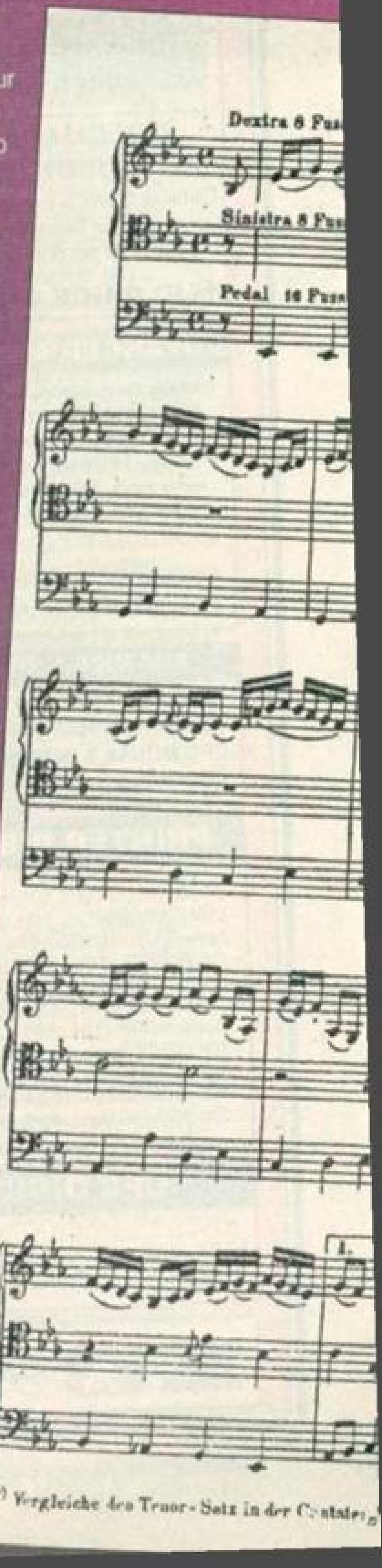
The bottom line is that if you have any interest in trying to make music on your CPC then this will serve you very well indeed. It's easy to use, it makes a pleasant sound and the sounds are easy to bung into your own programs.

You're not, as I said, going to use it to record a number one single (although, with the way the music scene's going right now, it's not completely beyond the bounds of possibility) but it's a damn good (and inexpensive) way to get down to some serious musical experimentation.

Verdict

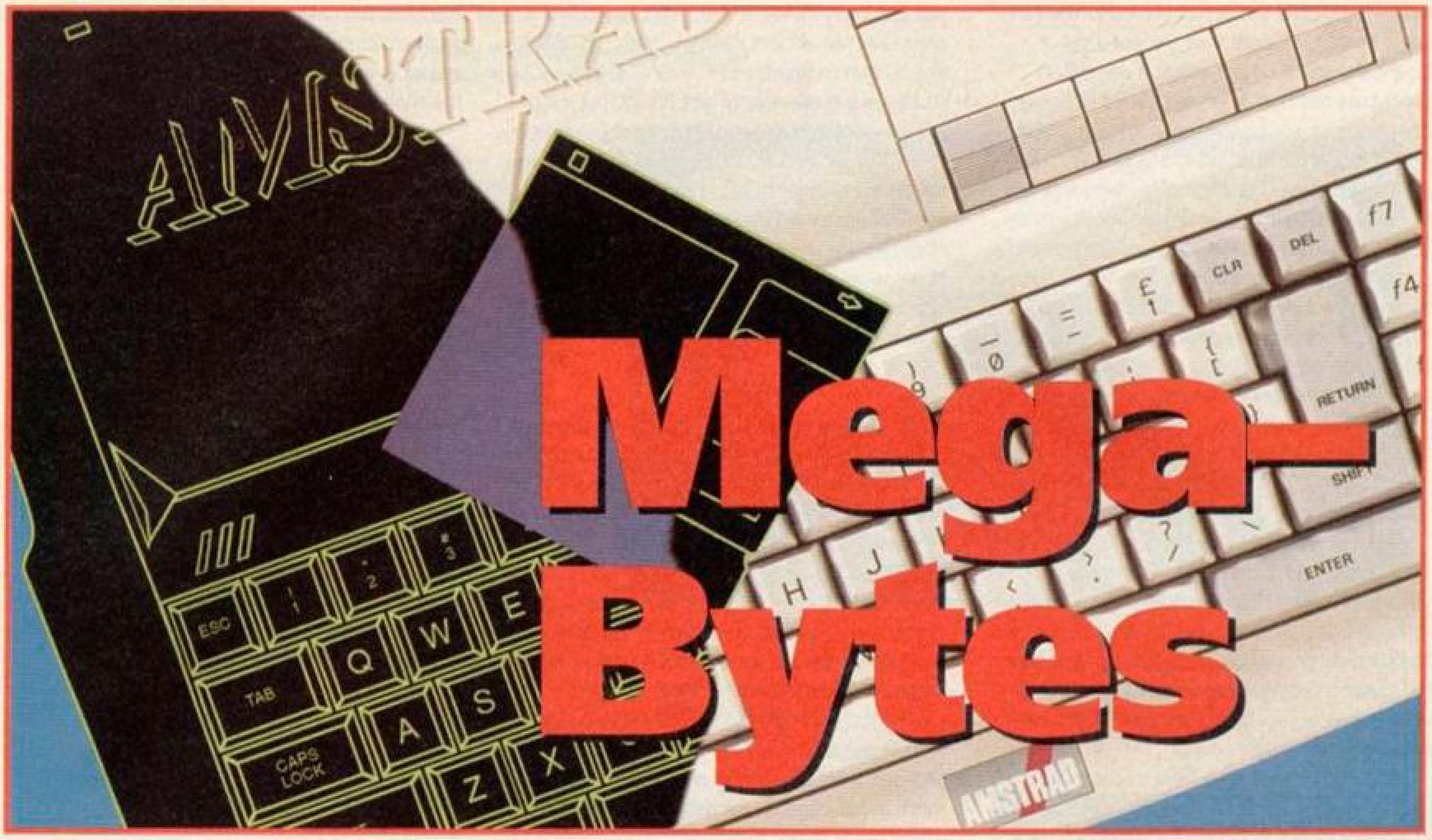
A very smart, easy-to-use little program. Good on-screen information and tidy system of menus. It'll keep you musically busy for a goodly long while.

93%



Who? What? Where?

Sentinel Software
41 Enmore Gardens
East Sheen
London SW14 8RF



Mega-Bytes

How do those mysterious computer things store stuff? We sent Simon Forrester to find out...

You may think the 3" disc system is expensive. You may curse the fact you ever bought a tape-based machine. But storage really is a wonderful thing. In the next few pages you'll start truly appreciating the incredibly advanced devices we take for granted every time we turn on a CPC.

There are four types of long-term storage in common use – tapes, discs, hard drives, and ROMs. And these are all related to the original monster machines in one way or another.

Grandfathers

The original grand-daddy of computers. Think back to the early computers (not the ZX81, dolt, further than that). In America, they'd just finished the development of ENIAC – the predecessor of today's home computer. They turned it on and, surprisingly, it worked. Why surprisingly? It's got nothing to do with the people who built it. The big surprise comes when you realise that ENIAC had no microchips, no hard drive, no disc drive, no tape slots, or anything like that.

ENIAC worked with valves, ticker tape, and punch cards – just bits of paper with holes in them, the holes representing information. Now... You may not have many bits of punch card next to your trusty CPC, and you've probably never even seen ticker tape, but though the technology was stone-aged in comparison to the way we store data on discs today, the principle remains the same. Read on...

The Tape System

The whole idea of tape drives started with the large reel-to-reel decks you still see sometimes in old movies. They involved a huge spool of tape inserted into a cabinet, which was read like a movie reel, except for the fact that it held magnetic information. The magnetic information was still, however, a series of 1s and 0s, just as ticker tape contained holes or, erm, otherwise.

Philips saved the day at around the start of the sixties by developing the Philips Compact Cassette (in 1963). Developers saw the opportunity they'd been waiting for. You see, in effect, a computer cassette is just a small piece of ticker tape, except instead of paper with holes, we have tape with magnetic marks.

The Disc System

I must now refer you to a story by a fellow CPC journo, one Auntie John (collective cheers from the cult readership). He sees the revolution of the disc as very simple:

There was once a research scientist at IBM who loved making pizzas. He seemed to spend most of his free time trying to perfect a method of spreading pizza toppings nice and evenly. In the end, he came up with the idea of spinning the pizza, and dropping the topping onto it, creating a pizza covered in nice and even blobs of topping. *(He's mad, of course. – Ed)* Now... Remember the ticker tape? Yes, you've got it – kind of like a ticker tape record player. The blobs of topping represent the binary 1s and 0s, and lo, we have the 8" disc.

The principle for the 3.5" and 3" discs are similar except dropping chocolate on to digestives for 3.5", and Hob-Nobs for 3".

Hard Drives

To get more data on a disc you should, theoretically, just use smaller dots. The one problem with normal disc drives is that the floppy disc has a few short comings. Because the idea of a floppy disc is to have several of them, and insert them into the drive as you need them, floppy discs cannot have the same amount of detail on them – you can't be precise with something that'll be picked up, jarred about, and not exactly precisely grasped by a disc drive.

Answer? Keep a really precise drive (with tiny dots really close together) inside the disc drive all the time. "But what use is just one disc?" Simple – because we can now have tiny dots really close together, we can store huge amounts on this disc.

A hard drive is just several discs (called cylinders), that have incredible detail, due to the fact that they're so well protected by the hard drive itself, and cannot be removed from the drive. This allows 40, 60, or even 80 megabytes of storage space, effectively cutting out the need for floppy discs altogether (except for transporting software between hard drives.

ROMs

Remember ENIAC? Well, before the magnetic media industry could come up with all these wonderful ways of storing data, the hardware developers had to work on a better way to process it.

Silicon Valley then proved to be the main source of computing raw materials, since, as the name suggests, it happens to be very rich in silicon. Why silicon? Well... The invention of the silicon chip was the next step in micro-technology. To cut a long story short, the silicon chip replaced the huge amount of circuitry, valves and other such cumbersome computer parts. The way in which a microchip works isn't very difficult to understand, either:

ENIAC and her sisters worked in very much the same way that a computer like the CPC

works today. And the secret is binary. You can find a further explanation of the workings of binary elsewhere on this page. A computer processes numbers in binary, performing logic operations on any bit (binary term) with simple AND, OR, NAND, NOR, NOT, and XOR Boolian logical principles. The microchip, then, was no major revolution in processing power. It merely helped in size and speed. Whereas beforehand a computer would have to work with huge currents, etc, a microchip, though performing the same task as a room full of valves, etc, has hundreds of what are effectively microscopic valves, and works with smaller currents (to the point where the current is pretty much static). Because the whole unit is so much smaller, it's faster – I won't go into the full laws of physics – take my word for it.

So this just leaves two loose ends to tie up as far as microchips are concerned. Firstly, where does silicon come into it? Well, silicon is the material chips are built from (it has bizarre electrical properties which enable it to be used for complex switching operations). Secondly, where does all this fit into storage? Well, ever heard of an EPROM?

An EPROM is simply a form of computer memory, similar to RAM, except whereas RAM stands for Random Access Memory, EPROM stands for Erasable Programmable Read Only Memory. More simply, it acts as a chip that can be programmed, allowing storage of software that can be retrieved at the same speed that a computer can access memory. Your CPC ROM (the bit that makes the CPC a CPC) is just a factory made example of an EPROM (but it's just a ROM – not erasable, and not re-programmable).

As well as the CPC ROM, your CPC can handle many other ROMs, though you'd need a ROMbox (an extra circuit board to hold the extra chips) before you could plug them in. Once you have, however, you could have software like *Protext, ROMDOS, Maxam*, etc, instantly, without even having to touch a disc or a tape!

Uses

So the western world has developed a series of quite wonderful storage systems for you to use. But what use is all that to you? It all depends on what you want to do.

Tapes

When the CPC464 first came out, it was purely a tape based machine. Since then it has been possible to add various disc drives, but it was originally a tape-based machine.

The cassette found it's niche in the computer market as the primary method of storing data. It provides a cheap alternative for discs, and has a much larger capacity for data (depending on the length of the tape).

The main use of cassettes these days is the sale of commercial software. Considering it's possible to attach a tape drive to almost any CPC machine, the cassette has become the prime medium for the sale of software. You won't, for instance, find disc-based software for the CPC on the shelves of WHSmiths these days.

Discs

The 3" disc took over from the cassette for most CPC users on the release of the external drive for the 464s, and the release of the 664s, which were soon superseded by the 6128s. They are by far the most popular medium for serious users, as a disc means fast access to large programs, and fast storage of large and previously unmanageable amounts of data.

The only real problems with the 3" disc were first it's lack of storage capacity (it could only hold 180k of data), and secondly, it's price (a blank disc used to cost around £3-4). This problem was soon solved, however, by the addition of a 3.5" drive to the CPC, allowing the use of 3.5" discs, which cost considerably less. Soon after this was discovered, the high capacity package was written, allowing users to store 800k onto one 3.5" disc. Today, the 3.5" disc is still the favourite storage system among serious CPC users, as it's the most practical and economical system to appear.

Hard Drives

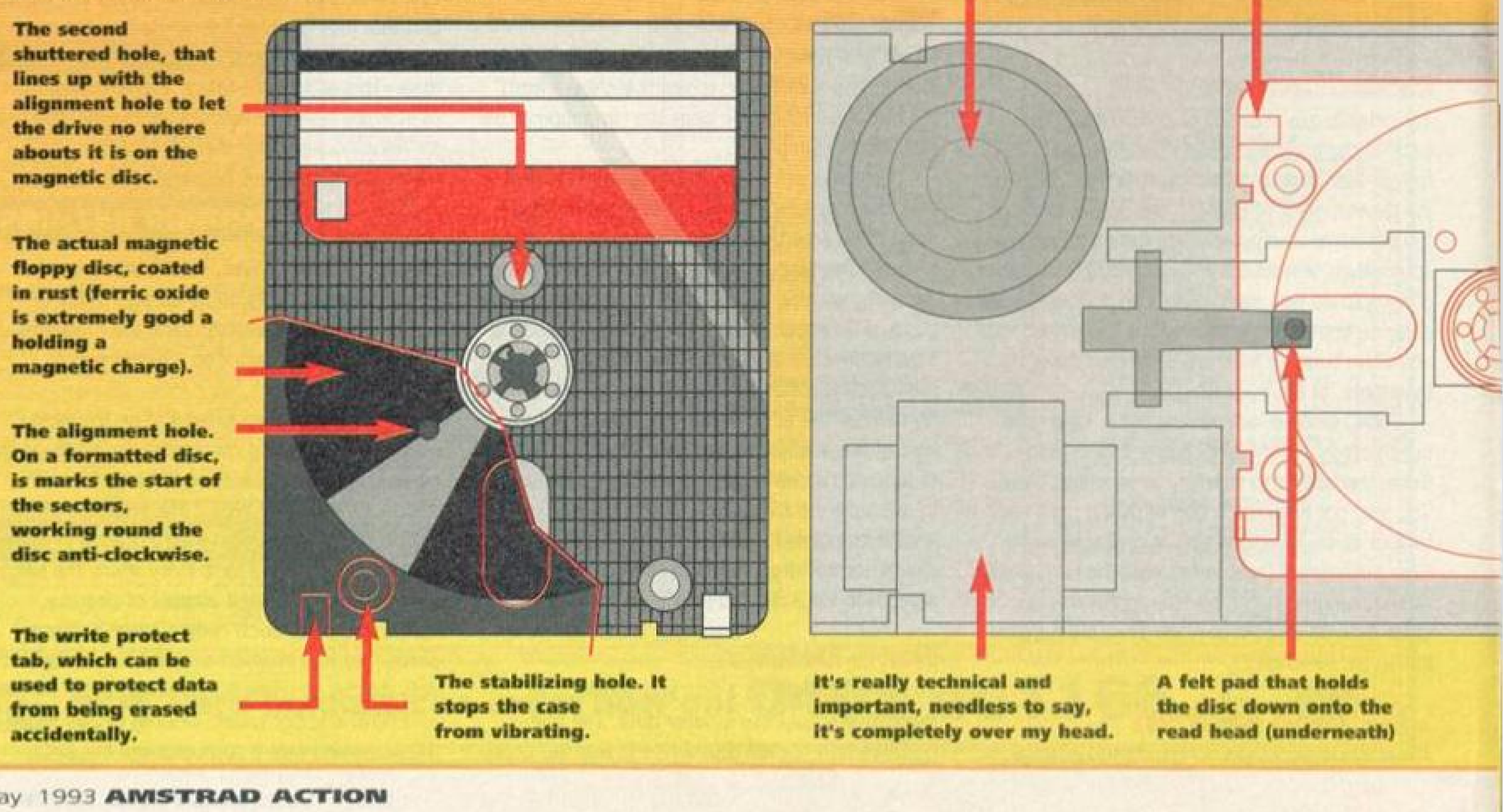
Why cover hard drives in a CPC mag? Well, Campursoft have nearly finished development on their latest and probably their best product – a

The Disc System

If we cut a chunk out of the front of a disc you can see what's going on underneath. The actual floppy disc is attached to what looks like a cog in the centre of the unit. The extra hole in the disc lets the drive know what part of the disc it's looking at – when it passes past the corresponding hole in the casing, an LED inside the disc drive shines through the hole, and the disc drive knows where it is on the disc.

The only extra part is the write protect tab. This is simple. The drive detects whether the tab is in or out, and either allows writing or doesn't accordingly.

And what happens once you've put your disc into that ominous black hole in the front of your CPC? The diagram below should give you a rough idea. As you can see, a disc drive is just a motors that spins the disc, and a piece of felt that pushes the actual

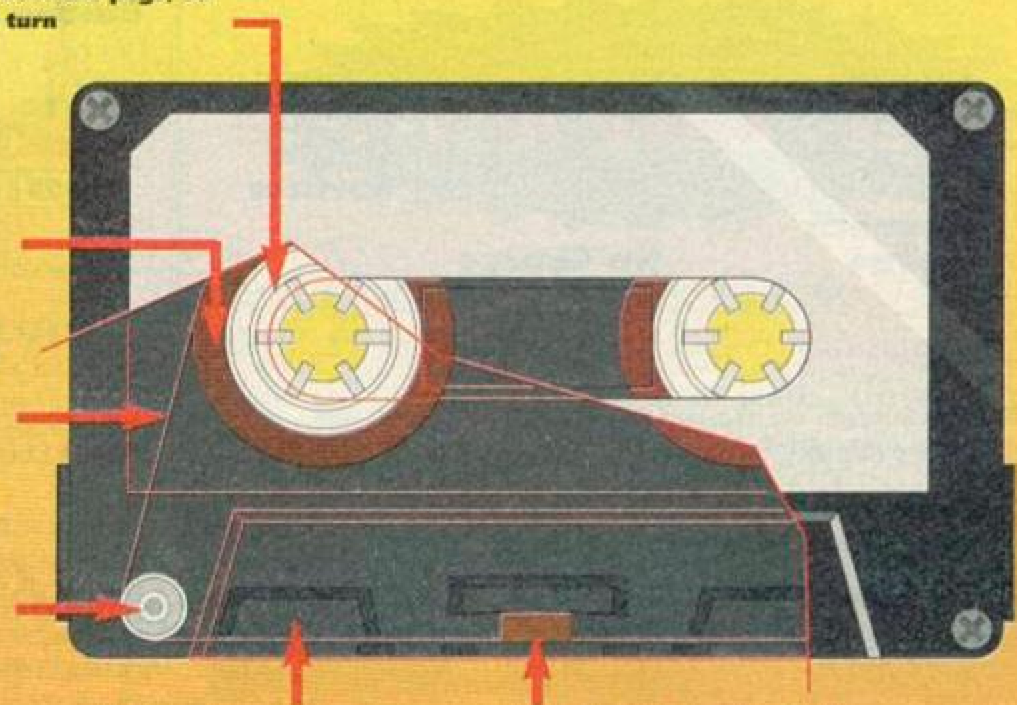


The Tape System

The way in which tapes work is much simpler. In basic terms, the tape is held in a spool on one reel, and ran onto the next, passing over the read head.

The read head works by detecting the changing magnetic field stored by the iron oxide particles on the surface of the tape.

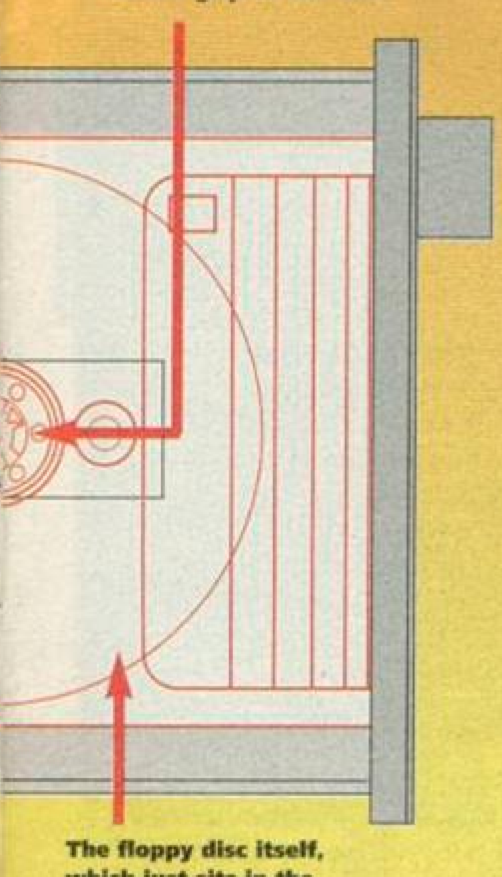
There are more heads on a tape deck than a disc drive, because when you want to write to a cassette, the erase head must wipe it clean first, before the write head can record new data on the surface.



40MB hard drive for the CPC.

As with all hard drives, it will probably be quite costly, but quite a few serious-minded users should find it invaluable. More on that, though, when we get a review version for you.

floppy disc part of the disc onto the read head. The disc isn't pushed onto the head too heavily though, it's just got to be held steadily, so that it doesn't move away from the head and become unreadable.



ROMs

A lot of people would dispute that a ROM is a form of storage media, but we assure you that it is. The only difference is that you can't save anything onto a ROM without very technical equipment and a lot of time, so they're not at all suitable as a form of user storage.

You can, however, buy serious software on ROM, and providing you have a ROMbox, access it faster than you could from a disc drive. Also, because it's already in a form of memory, it doesn't take up much extra space on your CPC when it's running. Strange, huh?

Who Sells What

In the meantime, there's still a lot of extra storage equipment available from the various software houses and hardware developers.

Tapes

CPC664 and 6128 owners can attach a tape deck to their machines very easily. All you'll need is a tape deck and a lead to connect it to your CPC. You can find the leads in most electrical shop or from OJSoftware for £3.95. If you do want to connect a tape deck to a Plus, then try reading the this months upgrade feature on page 40 for the full details.

Discs

If you're planning to buy a disc drive, there are several choices, depending on what machine you have, and what drive you want.

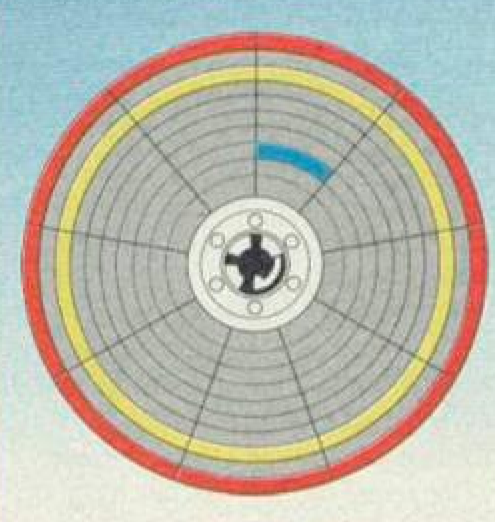
464 owners must have a DDI-1 interface (or equivalent) to add any sort of disc drive. If you want a 3" drive, you've got to buy the DDI-1, complete with interface. But they'll be difficult to find – Amstrad don't make them any more.

464 owners who want a 3.5" drive can find them from either Avatar or Siren software complete with DDI-1 interface (or the nearest equivalent). This will, provided they have the right software, allow them to store 800k on one disc.

Sector Five?

The actual floppy disc is logically arranged into tracks. A track is a concentric circle running around the disc, and shown in the diagram below. On a real disc, there are forty (usually). The directory track (the part of the disc where the list of files is stored), for instance, is the outside ring (track 0) on data discs, or track 2 on CP/M format discs.

Now... To make life even easier, each track is split into nine sectors. This is simply to make the disc drives life easier, as it can find what it wants much faster with the extra guidance of sectors. Each sector can hold 0.5k (512 bytes). This means a track can hold 4.5k, and a disc can hold 180k in total. Take away a few K for the directory (not all of the directory track is used for the directory).



664 and 6128 owners don't have that kind of hassle, however, as they already have the equivalent to the DDI-1 already in their machines (to run the first drive). Therefore, they can add just about any type of drive without worrying about interfaces. They will, unfortunately, only be

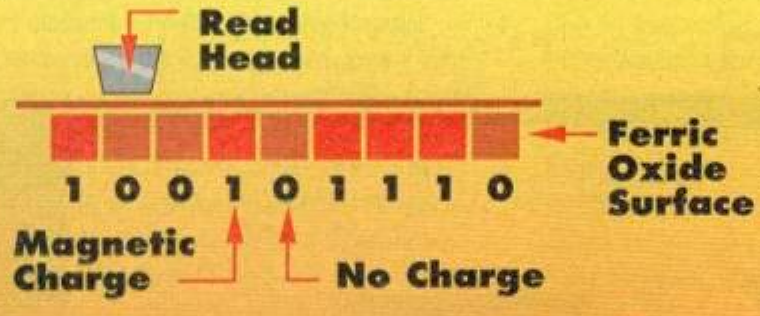


Fig 1

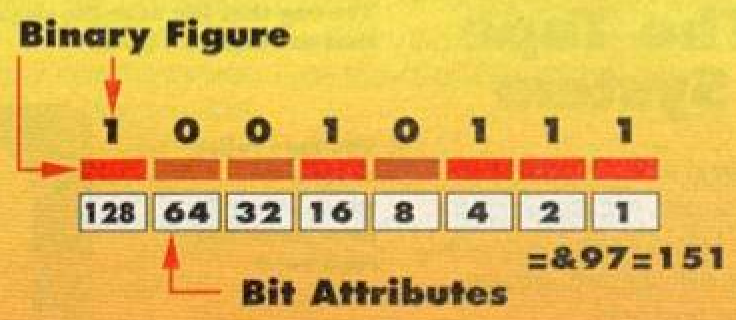


Fig 2

able to fit 180k onto any disc, until they get hold of a new Disc Operating System (DOS).

DOSes

If you want the really in-depth look at all of the DOSes, you should turn to issue 89, where they were reviewed in full. Since that review however, there have been a few developments. In the long run though, you would be best to look into buying S-DOS from STS Software, as it allows higher formats in the A drive as well (for 464 3.5" first drive owners). If you want some nice extra utilities though, ROMDOS XL from Siren Software has copiers and directory editors built in. Remember though – if you want a high capacity 3.5" drive, you'll need a high capacity DOS.

Future Shocks

So what does the future hold in store? Well, you've already read about the hard drive that should be available quite soon, but what else is around? Well... You may not see such an item on the CPC, but a lot of machines have CDROM drives attached to the back.

A CDROM drive simply uses a CD instead of a tape, but in exactly the same way. Because CDs are of incredibly good quality, the data can be written to the disc at much higher speeds, taking up less space, and time. Think of a CDROM as a cross between a hard drive (due to it's size), and a ROM (it can't be written to, only read).

The Codemasters did attempt a version of a CDROM, but for reasons unbeknown to this planet, it never really saw the light of day. It did make other 8-bit formats, but never saw the CPC. It worked on the idea of plugging any CD player into your CPC (via a special cable), and using the CD containing 30 (yes, 30) full games. Maybe the new hardware gurus Campursoft will come up with something, but for now, sadly, you can forget the idea of using CDROM.

All is not lost though! By the time you're reading this, a revolutionary CPC add-on should be sitting under the AA microscope, as we prepare to review Britain's first hard drive for the CPC! All 40MB of it, and for less than the continental 16MB model. This new hard drive will be courtesy of Campursoft, and both AMSDOS and CP/M compatible. Storage wise, the future is looking good. Hold your breath – we are...

Magnetic Storage

Tapes, discs, and hard-drives all use a technique called magnetic storage. It's method of working is really very simple. Whereas punch tape had holes representing 1s, magnetic media uses a small magnetic charge on the ferric oxide surface The read head then moves over the tape, sensing whether there is a charge or not (just as it used to check for holes, except magnetically), reading either 1s or 0s to form whole binary numbers, which can represent absolutely anything the computer wants it to.

Binary

Around this feature you will have heard the term binary. The odds are, if you're new to things such as machine code, etc, you won't quite understand what binary is, or why we use it.

Computers, deep down, can only store two numbers – 1 and 0. These are represented as voltage or no voltage (actually, for the terminally pedantic, they're represented by low and high voltages, the threshold being around 8V). So how can we represent larger numbers in this way? The system we use means we can store any number up to 255 with just eight 1s or 0s (bits), with each bit representing a value.

Take a look at Fig 2. The binary number 10010111 is the equivalent to the sum 128+16+4+2+1, which equals 151. And you thought it was difficult...

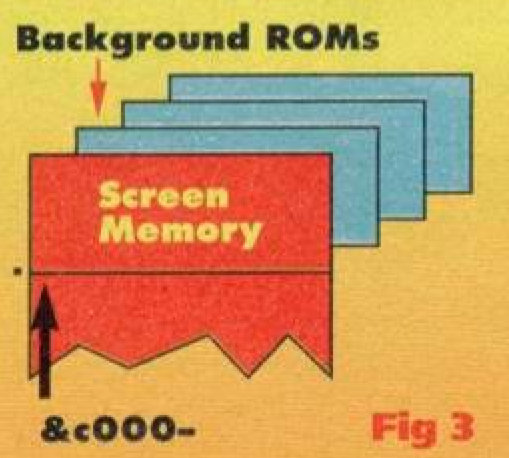


Fig 3

When In ROM...

Have you ever wondered why it is that you can have a ROMbox full of ROMs, with word processors, assemblers, tool boxes, disc utilities, etc, and yet you never lose any memory? That's because of the way in which ROMs are patched in to the CPC's memory.

Each ROM sits 'behind' the screen memory, and when initialized (run), is accessed at the same address in memory as the screen (&c000 – 49152). *(Confused? I am. – Ed)*

The reason you can't see it on the screen in the form of data is simply because though the CPC finds a ROM when it looks at that part of memory, the screen display system still sees the screen. Strange, but true.

Glossary

AMSDOS – The DOS system supplied in 664s, 6128s, and DDI-1 interfaces. It's the Amstrad's DOS.
Boolean algebra – A mathematical logic system invented by English mathematician George Boole and used in computers.
Capacity – The amount of data that can be stored on a particular medium.
CDROM – A compact disc, with both the qualities of a hard drive (a massive capacity) and a ROM (it can't be written to).
CP/M – The secondary CPC language, supplied whenever you buy an Amstrad disc drive.
Cylinder – The equivalent of the floppy disc found inside a hard drive.
Data – Information, be it text, programs, numbers, pictures, or whatever.
DOS – Disc Operating System. Software allowing you to use a disc drive.
ENIAC – One of the first computers ever to be built to cope with modern data operations.
EPROM – Erasable Programmable Read Only Memory – A ROM that can be written to with special hardware, and erased with ultra-violet light.
Floppy Disc – The standard computer disc, called floppy because the inner disc is actually very, erm, floppy.
IBM – International Business Machines. The leading developers in early hardware, and company responsible for the PC.
Megabyte – One million bytes, or 1000 kilobytes. Abbreviated as MB.
Punch Card – A piece of card with several rows of what is effectively ticker tape.
RAM – Random Access Memory – Normal computer memory.
ROM – Read Only Memory. Simply memory that cannot be erased, and so can hold software indefinitely.
ROMbox – A facility for inserting ROMs and EPROMs for use in a CPC.
Ticker Tape – The method of storing data on older computers. A strip of tape with holes representing data.

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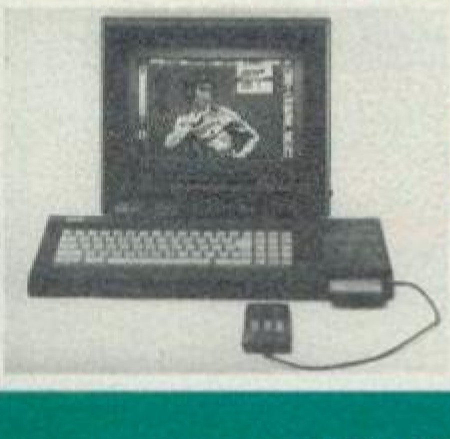
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It's an Art! PART THREE

So here's good old Tim Blackbond with the final instalment of our 'How To Draw'-type series. All you need now is some ideas and a bit of talent...

If you can remember that far back, we finished off last time with a picture of a house, greatly improved from that in the first part.

This month, we still have window operations and the several other special effects (mainly within *Art Studio*, sorry!).

Let's Look Through The Triangle Window...

The Window operations cover all those that involve defining a block of screen before working on it.

These functions can be found in most other packages under names such as: Cut & Paste or Block. And how very useful they are, because it's here where we find another advantage that computer art has over the paper variety. When Leonardo Da Vinci suddenly decided to put another camel in the background of his paintings, he had to go through the tedious procedure of re-drawing it (take it from me, camels are very difficult to draw).



By simply selecting 'Define Window' (*Art Studio*) and drawing a simple rectangle over the area of screen you are interested in editing, it can then be moved, copied, inverted, rotated, rescaled... The list goes on.

For example, on our picture (flick your eyes to the right), say we wanted another tree next to the existing one. A quick window, and hey sesame – two trees!

Don't Paint Over The Red!!!

It may seem strange at first, but (watch out, another Art Studio only operation coming up) Protect Inks is probably among the most useful functions you could use.

Basically, it does just what it says – protects selected colours from being drawn over. Not only can this be used with normal drawing functions, but also fill, windows and it is almost vital for the Merge Picture function in the FILE menu.

In the case of the house picture, the rays of the sun were drawn by putting a red outline around the circle, protecting every colour but blue (the colour of the sky) and using the Rays option from the centre of the sun.

Then, all colours we protected but the red and the outline was removed. An easy, evenly spaced gap between the sun and rays.

And Finally...

That appears to be about all you need to know to draw pictures. Just a smidgen of practice and you'll be producing masterpieces in no time.

Art Studio Tips

★ When drawing picture outlines, turn the Cross-Hair Cursor OFF from Input Devices within the Misc menu. The cross-hair tends to obscure the start of the line.

★ Draw the main outline of the picture (leaving any really fine parts) in MODE 2, then convert it to the desired mode. It is easier to draw in a higher resolution.

★ If you haven't got a mouse, get one. Only really patient people can do a half decent work of art using a keyboard or joystick. They're only about £50, but worth every penny (and you get *Art Studio* free!)

★ ...On the other hand, if you find you are best at drawing freehand, check out a back issue of AA and whip yourself up a lightpen, they really are quite smashing accessories.

★ In some cases, the palette may need changing for printing. This is because some colours print in the same shades as others (for example, red (INK 3) comes out as black, as does blue (INK 1) and white (INK 13). Try experimenting with different colours to see which looks best (unless you have a colour printer of course!)

★ Before starting ANY picture, don't forget to switch the computer on.

If you draw anything on your CPC of which you're particularly proud, send it in and we may even print it. Don't bother if it's a lemming, though. ●

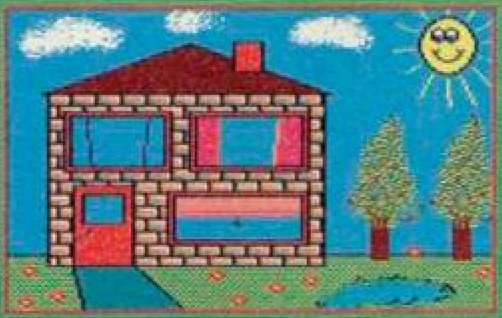
House-building for beginners – part three



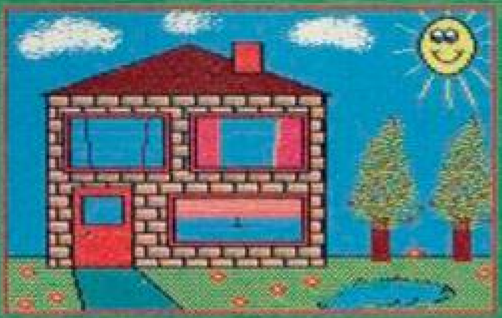
1 If we add another tree (using Copy Window), we have an instant solution to non-sustainable forests.



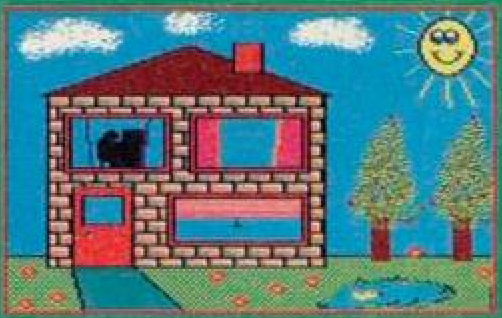
2 A house isn't a home without a few little extra touches, so we'll have to put curtains in the windows.



3 And everything needs a little brightening up, too. Now it's starting to look quite good.



4 (Tim, we're a bit puzzled about this – it's the same as the last one. Where's the duck you promised? – Ed)



5 (Oh, there it is, in the pond. And a chap at the window, too. Thanks, matey, that's very nice. – Ed)

3.5 inch A: drive

You'd like a 3.5" disc drive? Hold on though... Isn't that a 464 you've got there? What are you going to do? Simon Forrester knows...

A long time ago, you could by DDI-1 disc drives from Amstrad, complete with a little interface allowing you to use said drive. Now, as anyone who's tried to get one of those little beasts will tell you, they're not easy to come by these days – and even when you do get hold of one, you've still got to pay about £3 for discs that you probably can't find in the shops anyway.

This is where Simon Cobb's company, Siren Software, step in and save the day (as in all the best novels). To cut a long story short, they've just released an equivalent to the old DDI-1 interface and drive, with a few points up on the old models:

★ It's about a quarter of the size
★ Its interface box is on a cable, instead of on the back of the machine.
★ It's a 3.5" model!

'But what use is a 3.5" inch first drive?' Well... Unless you manage to find commercial computer software supplied on disc in this day and age (okay, *Nigel Mansell*, and maybe *Super Cauldron*, but that's about it), you haven't exactly got many problems, have you?

Decent PD Libraries will supply software on 3.5" disc on request, you can use them just as you would a 3" drive for your normal programming uses (but fit quite a bit more on them), and even transfer your covertapes onto them. The only thing you can't do is buy some commercial software on that format, but the amount of people releasing on 3.5" increases monthly.

It's about time to open the box and see what's inside. First, there's a nice little grey 3.5" slimline drive. You should also find a large black box (the disc interface) with two cables attached, a power supply (with a nice substantial amount of lead, by the way), and finally, the master DOS disc.

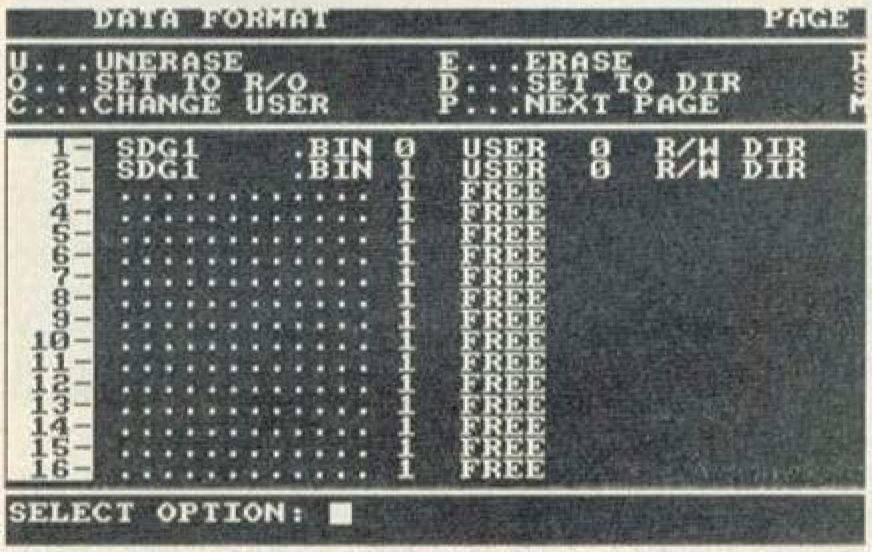
So. You've got a slimline 3.5" drive, that's nice and quiet, but anyone could sell you one of them. The beauty lies in the software. On the 3.5" master disc there's a file called 'disc' which is probably one of the most comprehensive disc utilities you'll find.

Master Disc, presents you with a menu from which you can access one of the many useful sub-programs, such as a directory editor, a fast formatter, a sector editor, de-protector, header reader, file copiers, sector mappers, file typers, and a disc zipper (it speeds up the drive's operation).

So, with well-written software and a good quality piece of hardware, the Siren 3.5" drive should satisfy the CPC464 (and plus) owner's need for a disc drive. ●



The main menu allows you to access a wide range of extremely useful disc tools. The software is as important as the hardware.



The directory edit function. It allows you to change the attributes of files (hidden, read only etc). Useful? Yes, damn right it's useful.

The Down Side?

When you bought a disc drive from Amstrad, you also got two discs containing a package called CP/M. In its full blown glory, it's a very complex and (maybe) very useful programming language, and in its simplest form, it's a fairly average disc utility. Of course, when you buy a Siren drive, you won't get CP/M, so you may miss out on a little bit of PD software, but with Master Disc supplied free, you shouldn't miss much – it's got utilities CP/M junkies only dream of.

Who needs one?

So what's in the box?

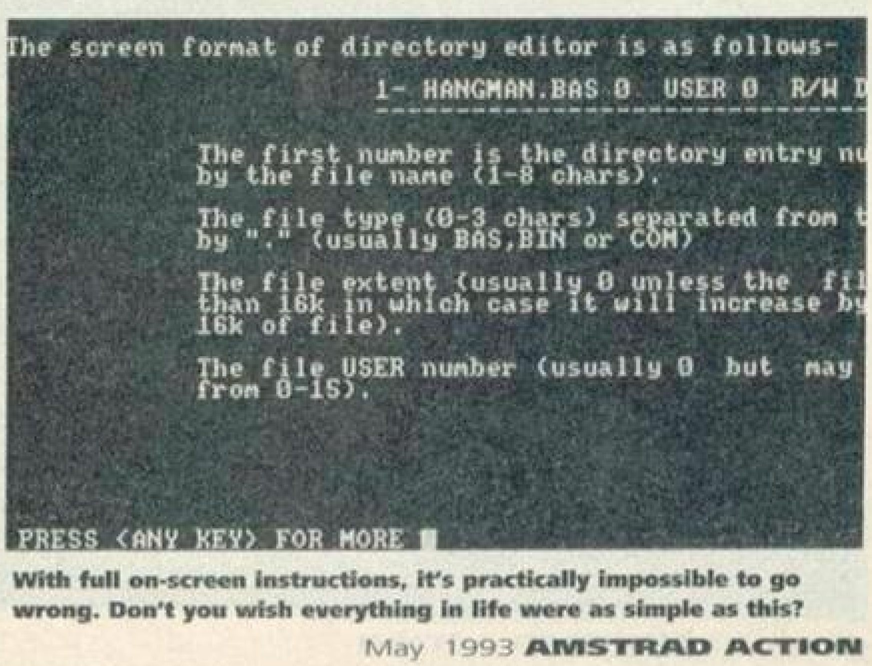
Right. As you may or may not already know, your CPC has the facility for extra ROM software to be added (see storage feature).

When you buy a DDI-1 interface, as well as getting the extra plug (for the drive), you get a ROM chip (inside the interface) that tells the computer that there's a disc drive present, and just how to use it.

This is the only reason we need an interface to plug a disc drive in, but without that ROM, the CPC wouldn't even know there was a disc drive attached.

Where To Go

You can get the drive from Siren Software at:
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With full on-screen instructions, it's practically impossible to go wrong. Don't you wish everything in life were as simple as this?

Balrog

Hot news from the world of Adventure

The Balrog has struggled through thick and thin this month to bring you the latest, most up to date, adventure info around! So glue in those eyes and start reading...

The Balrog Adventure Competition Results

The Balg was literally snowed under with entries for the GAC compo. To say 'There were many entries' is a little like saying 'There were a lot of dwarves in The Hobbit'. Or that Gandalf knew a trick or two. Suffice to say that judging this competition has not been an easy task even for a mighty Balrog. But it has been enjoyable. The majority of entries were of a surprisingly high standard, which leads the Balg to think that software companies should be doing more to seek out untapped talent among our readership.

It was interesting to discover that the range of themes and ideas was quite wide, and not all dungeon-dabbling, despite the obvious Balrog connotations. There were *Balrog in Space*, *Balrog's Manchester Adventure* (some rather dodgy ideas in that one – the appropriate authorities have been informed...) and even *Carry On Balrog* (well, perhaps there wasn't that one, but it might have been interesting if there had been!)

I was also pleasantly surprised to see the number of ways in which people managed to squeeze the most intricate and unusual types of problem out of the *GAC* environment. It proves once and for all that programs are constrained only by the ingenuity of the people writing them, no the system they're using.

An early favourite was *Balrog's Folly* by Alex Prentice from Midlothian. This was based loosely around the AA office, with increasingly bizarre locations as you move deeper into the game. The accompanying literature was of a very high standard, and the value of this side of game production can not be over-stressed, even in a non-commercial environment such as a magazine competition. Infocom realised the potential of heavy packaging emphasis from their early days, and went on to become the most purchased game producers in the adventure market.

Another aspect of this game which I enjoyed was the sense of humour. It was very refreshing, if not always quite hitting the mark! I especially liked the dictionary pun, but you'll have to wait

Lords & Ladies of Adventure

If you have a problem with any of the following games, simply drop a line to the person who knows what's what. Send them an SAE and wait patiently by your letter box. Don't ask for complete solutions, though or you'll be disappointed.

Adventure Quest ● Angelique a Grief Encounter ● Arnold Blackwood Trilogy ● Big Sleaze ● Black Fountain ● Bugsy ● Case of the Mixed-Up Shymer ● Castle Blackstar ● Castle of the Skull Lord ● Crystal Theft ● Cursed Be the City ● Cutthroats ● Dracula ● Dungeon Adventure ● DAA ● Enchanter ● Escape from Koshima ● Espionage Island ● Fantasia Diamond ● Fish ● Football Frenzy ● Frankenstein ● Gnome Ranger ● Gremlins ● Guild of Thieves ● Haunted House ● Hermitage ● Hitchhiker's Guide ● Hollow Graphic ● Hollow Text ● Hollywood Hijinx ● Hunchback ● Imagination ● Inca Curse ● Infidel ● Ingrid's Back ● Jack the Ripper ● Jinxter ● Kingdom of Hamil ● Kobyash ● Naru ● Lancelot ● Leather Goddesses ● Lifeterm ● Lords of Time ● Lurking Horror ● Mansion ● Mindshadow ● Monsters of Murdac ● Mordon's Quest ● Mountains of Ket ● Mystery of Indus Valley ● Myth ● Necris Dome ● Never Ending Story ● Nova ● Nythyhel ● Pawn ● Planet of Death ● Planetfall ● Questprobe ● Rebel Planet ● Rigel's Revenge ● Robin of Sherwood ● Robocide ● Seabase Delta ● Shard of Inovar ● Sharpe's Deeds ● Ship of Doom ● Smashed ● Sorceror ● Souls of Darkon ● Spellbreaker ● Spytrek ● Star Wreck ● Subsunk ● Theseus ● Top Secret ● Venom ● Very Big Cave Adventure ● Winter Wonderland ● Wishbringer ● Wolfman and Zork I ● II & III and all Interceptor games!
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Dave Adams, 49 Myers Gardens, St. Helens, Merseyside WA9 3YX.

Novices start here

'But I've never played an adventure before!' I hear you cry. Ummm... Difficult... You see whole tomes have been written on playing adventures, massive manuals included with larger games on learning the basics and the poor Balrog has only two hundred odd words! So I'll be brief.

What is an adventure?

Think of it as an interactive story with you as the central character – what you type affects how the story turns out – whether the hero dies at the hands of a princess or saves the beautiful dragon.

Unfortunately the little CPC can't understand everything you type so adventures have keywords which are used in most games for commonly used actions – these are outlined below.

Moving around

All the compass directions will usually move you between locations (a location being a separately described place such as a forest or prison cell) so east, west, north and south are acceptable. Sometimes games also use north-east, north-west etc. (abbreviated to NE, NW etc.) as well as up and down. LOOK will re-describe the location you're in.

Manipulating objects

You may see a lamp in the dungeon but what do you do with it? Well, you can GET LAMP, EXAMINE LAMP, LIGHT LAMP, DROP LAMP etc. Experimentation is the key to the game - get to know a game's limitations.
INVENTORY (or I) will list objects you are carrying while WEAR and REMOVE will wear and remove clothing, hats and so on.

Other useful words:

ATTACK, CAST, CLIMB, CLOSE, CUT, DRINK, EAT, FILL, GIVE, HIDE, JUMP, KNOCK, LISTEN, LOCK, MOVE, OPEN, POUR, PULL, PUSH, PUT, READ, SEARCH, SHAKE, SIT, SLEEP, SMELL, STAND, STAY, THROW, TURN & many more!

Most of all the major point of adventuring is to enjoy yourself!

and see if it makes it to PD to know quite what that was! The main drawback was the lack of a 'drop' system. Whether this was not implemented due to memory restrictions or for other reasons it did add annoyance to the game especially as you couldn't complete the game with the solution given as you couldn't carry all the objects needed!

The Balg was also very impressed by 11 year-old Mark Zarky(?) from Pinner in Middlesex. Though his descriptions could have been a little better expressed, they had a richness and sense of atmosphere which a great number of entries lacked. Keep at it Mark, a career in adventure writing may well be waiting for you!

And so on to announcing the winner The competition entry which, after beating all-comers in a fight to the death over several months, was to gain the supreme honour of 'Amstrad Action cover tape' is... *Who's Afraid of the Balrog?*. Next month you'll be able to enjoy it in all its glory – and you won't be disappointed.

The author is the mighty GAC wizard Marlon, whose cunning and cleverness left most other games standing. The game uses more locations that most of the entries, yet its only concession to memory versus completeness is the message 'This is GAC remember. Do you realise how much memory that uses?' in response to the request 'GET ALL'. Not only can you examine everything in the adventure, but you can examine things to a level of detail usually only found in far more advanced adventures. Just wait till you try examining your pyjama trousers to see what you can find in them.

The game is quite difficult and should keep even the most adventurous adventurer on their toes, but all the puzzles are logical, if you keep your eyes and brain in gear. I must say I shall be interested to see how many people find the shopping bag on their first wander round the Balrog's domain – answer in a couple of months. The gnome on the lard is perhaps the oddest thing, but on the whole reality is kept in the forefront. Like a good detective novel, the adventure reveals all its clues to the casual observer, but if you're too casual you'll miss them!

I'm sure everyone will agree, when they see it next month, that it was a fabulous effort. So congratulations to Marlon, and to everyone else – don't stop writing. ●



Contacting the Balrog

To communicate with the Balg, write to him at:
Amstrad Action, 30 Monmouth Street, Bath, BA1 2BW.

Clue sniffing with Balrog

Ahhh! The Balg is running dangerously low on clues so please do the big hairy one a favour and send in your hints and tips on any adventures you've played. This months impressive selection of tips is thanks to Robert Smith (Gwynedd), Richard Jamieson (Aberlour) and Graham Booth (Tadcaster) - thanks guys!

Deadenders

- Use kebab bought at Smelli's to free Arfur.
- Give flowers to Loo for information.
- Clean uniform in laundrette.
- Buy pizza in Smelli's.
- Throw steak at Roly to get passed him.
- Open curtains.
- Move barrels in cellar of Old Queen.
- Put photo in wardrobe.

Gerbil Riot of '67

- To get past Ratty Ralph, get picture of cat, show picture to Ralph.
- To go downstairs and passed Count Crackers, go to kitchen, open fridge, get garlic, S, Wx4, N, get bucket, Sx2, D, throw bucket at fire, D, E and eat garlic.
- To get past Coneman the Barbarian, get bulb horn (from Psychiatrists room) and blow horn.

Helvera Mistress of the Park

- To escape from the cell, press film, hide, press play, escape.
- On landing, drop ladder, climb ladder to get gas mask.
- Dig in garden with spade.
- Get clay, mould clay (with potters wheel), bake clay in oven.
- In library, jump on carpet to kill scorpion.

Quest for the Golden Egg-cup.

- Give beans to guard.
- Search straw to find card.
- Give bottle to Wongo.
- Put all useless items in burrow.
- Wave wand to cross crevasse.
- Release caged bird to get rid of Guardian.

Smashed

- Pin is under seat of jeep.
- Rub fries on locket to get chocolate.
- Call Rancid on Tandy.
- Chocolate will make Rancid tell you the password.

Yarkon Blues II Part 1

- Examine seat, get tool box, D, Sx2, U, N, put tool box in force field, get hacksaw, S, D, Wx2, cut bar, cut bar, exam supplies, get plaster, Ex2, exam junk, exam pipe, put plaster over gash, get remote control.

Assembly Line 2

Simon Forrester sinks his teeth into a few more unsuspecting BASIC programmers, and shackles them to part two of his machine code series as "punishment for their sins".



Right. You've had your gentle introduction to the mysteries of machine code programming in the form of string printing.

Now it's time to look at what else we can do with ASCII characters. First off, lets look at reading them from the keyboard:

```
org &4000
limit &4fff
.loop
call &bb06
call &bb5a
jp loop
```

Simple huh?

The firmware call you'll be new to (probably) is **&bb06** which simply checks the keyboard and waits till a key is pressed, and returns with the ASCII value of that character in the a register. Quite handy, then, that **&bb5A** prints the character in the a register. You don't even have to swap registers! The bummer of all this is that though you can type lots of lovely things, you can't break out of the program again so you have to reset the machine (switch it off and switch it on again). Oh dear. You've just lost all your hard work! All six lines of it!

All is not lost

The easy answer to this is to wait for the user to press a special key (such as the ESCAPE key), and exit the program when (s)he does. Sounds simple, doesn't it? It is. So how do we check for these special keys?

Well... We know the character comes out of **&bb06** in the **a** register.

So if we can find the value for the ESCAPE key, it would simply be a matter of getting the program to check for it. This brings our listing to the following:

```
org &4000
limit &4fff
.loop
call &bb06
cp &fc
ret z
call &bb5a
jp loop
```

The extra lines we've added work quite simply. The first compares the **a** register to **&FC** (the code for ESCAPE), and sets the z flag accordingly (remember from last month?). The next line returns if the z flag is set. If the flag isn't set though, it'll carry on as normal. Getting the hang of it yet?



It's starting to take shape before your eyes.

All Done – that listing in full

Here it is, the completed program.

```
org &4000
limit &4fff

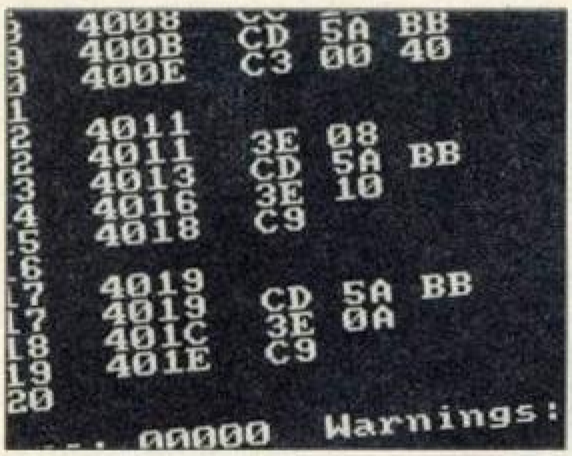
.loop
call &bb06
cp &fc
ret z
cp &7f
call z,delete
cp &0d
call z,enter
call &bb5a
jp loop

.delete
ld a,&08
call &bb5a
ld a,&10
ret

.enter
call &bb5a
ld a,&0a
ret
```

And, to stop complaints, here's a BASIC version for all non-assembler owners out there. Tack the DATA statements on to the end of the loader given last month. Refer to that article for more instructions.

```
HAHC 100 DATA CD,06,BB,FE,FC,C8,FE,7F
GAAN 110 DATA CC,16,40,FE,0D,CC,1E,40
GAML 120 DATA CD,5A,BB,C3,00,40,3E,08
GAFP 130 DATA CD,5A,BB,3E,10,C9,CD,5A
EAMN 140 DATA BB,3E,0A,C9,**
```



It won't be long now before you understand what screens like this are trying to tell you.

Just What Is Going On?

Don't tell me, you missed the first episode. Or maybe all this stuff is slightly going over your head. Right. So back to the start...

The listings in the main article (you'll find them in a CPC font for easy reading) are assembly listings. Assembly language is a language that an assembler (catching a pattern yet?) assembles (now?) into machine code.

So let's go for a walk through that first listing:

`org &4000`

This is not an assembly command. It's an assembler instruction. This means that instead of being a part of the actual program, it's passing a message onto the assembler about what it wants the assembler to do. This, for example, tells the assembler to locate the finished code at &4000 (which is a hexadecimal number), or 16384 (in decimal, though get used to hex, as that's what we'll be using from now on).

`limit &4fff`

Another assembler instruction, telling the assembler not to let the program run too far through memory. With the command set up the way it is here, the program will not be allowed to exceed 4k in length (go about &4fff).

`.loop`

Yet another assembler instruction, marking this point of the program with the label (name) loop. We use this method because we don't have line numbers, and need some way to refer to different parts of the program.

`call &bb06`

Finally – a machine code instruction! This command calls (equivalent of BASIC's GOSUB) a routine to wait for a key to be pressed, and send the ASCII value back in the A register.

`call &bb5a`

Another instruction to print the ASCII character corresponding to the number held in the A register.

`jp loop`

Remember that label earlier? This is the jump (equivalent of GOTO) to that point in the program. So go back to the line .loop, and start again from there!

Not more problems?

Unfortunately, there's another fly in the ointment. Actually, two. It was going to be one but we really need to get up some pace. Run the code, and type for a bit. Now press RETURN. Type some more. Oh no! It doesn't move down a line! You end up typing over stuff you've already typed! We'd better rub it out. Oh no! DELETE doesn't work either!

What shall we do? I'll tell you what. We'll look to the box entitled "All Done – that listing in full" for the completed listing (no, really), and then read the explanation below.

Just the facts, ma'am

The extra compare lines check for the specific characters, depending on the state of the z flag, and then calls the corresponding routines.

First, there's delete. Here, we print the ASCII control code to move the cursor back one character, then we load the a register with the value to clear the current cursor position. The reason we don't bother printing this character is that there's a call to **&bb5a** in the main program anyway, so we may as well use that. As for the routine called enter, take a look in your manual for the control codes, and see if you can work it out for yourself.

You can call me firmware

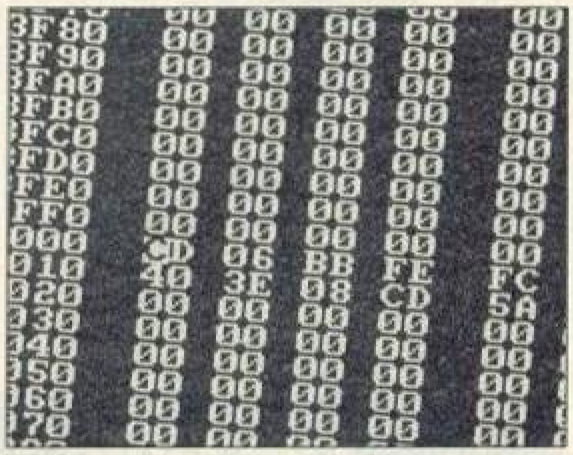
So, the new firmware routine this month is:

&BB06 - Wait_Key

This call waits for a key to be pressed and returns the ASCII value in the **a** register.

What have you learned?

This month, believe it or not, you've experienced a large amount of flow of operation. *(No, wait a moment. I've been jolly patient with all this jargon wibble, but that's it. What, exactly, is 'flow of operation'? Do you mean there's a lot going on? – Ed)* It means the way in which a program flows, branches, and jumps around to various subroutines. *(I thought so. There's a lot going on. – Ed)* For instance – in the program we've just written, there were several branches leading to the various return and delete routines. One important point you'll need to remember is that after the **cp** instructions, if the two numbers are different, the program does not branch off, but continues in a straight line.



And here's some code we prepared earlier.

The next thing you may find useful is remembering at all times the basic similarity between instructions in m/code and commands in BASIC.

For instance – The m/code **call** command is identical to BASIC's GOSUB. The m/code **jp** is just GOTO, and the m/code **ret** is simply RETURN. The only thing to remember is that instead of having line numbers, we have labels to represent the places we want to jump to. ●

Hexadecimal

You'll probably have been panicking about the use of hexadecimal numbers so far. Read on!

Hexadecimal numbers count in base 16 instead of base 10. This means that instead of counting 1 – 10, we count 1 – 16. However, for the numbers 10 – 15 (16, just like 10, is a two figure number), we use letters, to keep things tidy. These letters run from A – F. So how do they look when they're running? Below are a few simple conversions for you to get the hang of things. Remember though, hexadecimal numbers are always prefixed with &.

Hex	Dec
&00	00
&01	01
&09	09
&0a	10
&0f	15
&10	16
&19	25
&1a	26
&1f	31
&20	32

And just like decimal numbers, we can add more columns (powers) at the left hand side of the number. Only instead of decimal having powers ^10, we have powers ^16:

Hex	Dec
& ff	255
& 100	256
& 1ff	511
& 200	522
& fff	4095
&1000	4096
&ffff	65535

There you go then... It wasn't that difficult, was it! It was? Read through it again. Once you get the hang of it, everything's a million times easier.

Technical Forum

You want techie stuff? You got it. Write to Richard Fairhurst at Technical Forum, Amstrad Action, 30 Monmouth Street, Bath, BA1 2BW and he'll put you right.

Chip confusion

Looking through the latest AA I spotted in the Small Ads section two ads for a ROM box with the 464 upgrade ROM in them (40025). I thought that the ROM didn't work in a ROM box and had to be fitted inside the machine replacing the existing chip – is this true?

Once a 464 is upgraded, when you order an add-on for the back (e.g. mouse interface), do you ask for a 464 or 6128 interface?

B. Proctor
Leighton Buzzard

A specific ROM-board, known as the ROMboard Xtra, was the only one that let you put a 6128 ROM in it as an upgrade for 464s. Unfortunately, the manufacturer (Microstyle) is long since deceased, and its reincarnation, Avatar, no longer produces the board. If you have a 464 where the original chip is soldered in, a second-hand ROMboard Xtra is a worthwhile investment.

Ask for a 464 interface when you've upgraded your machine. The only differences will be in the interface's design, to accommodate the different design of the two machines: if you already have an interface connected with a through port, you can put any interface on the back of this anyway.

Character assassination

I need help with a demo I'm writing in BASIC. I want to use the fonts from the AA89 covertape without loading the font-loader program. I have got it to say 'Font filename', but I have to swap discs because the font that I want to use won't transfer to my other discs separately. Here is what I have written in my program:

```
20 INPUT "Font filename";f$
30 SYMBOL AFTER 32: h=HIMEM+1: LOAD f$+".fnt",h
```

Andrew Waddington
Bradford

If you just enter these two lines, and add a new one, you'll have a routine to copy a font from disc to disc. Add this line:

```
40 CALL &BB18: SAVE f$+".fnt",b,h,8*96
```

The CALL &BB18 waits for you to press a key (handy short-cut number 83), and the SAVE command saves out the font data again. So RUN the program, enter your font name, and when the disc drive has finished whirring, insert the new disc and press a key.

Drive

I have recently been given a 3.5" drive. The person (my uncle) who gave it to me said that it would work on an Amstrad, but I can't see how to get it to do this. Unlike my friend's cased drive with its own power supply, this one is very bare (you can see its workings underneath), has no connector for the CPC, and there is nowhere that I can plug it into the mains. I know nothing about electronics, so can I just buy a connector and power supply, or how else do I get it working? I have a CPC 6128.

Ben Alexander
Ripon

Your drive is indeed suitable for an Amstrad – an Amstrad PC. However, it will work on your CPC with a bit of persuasion, notably an appropriate lead, a modification to the disc drive (pin 34, the Ready line, needs to be grounded so that the CPC doesn't complain 'disc missing', because PC drives do not use this signal), and a power source – which is the most difficult bit. Rob Scott at STS (081 317 3536) will fit it to your CPC if you're not confident enough to do it yourself: probably a good idea, as playing around with power supplies is not something for the novice!

Incidentally, drives like this can be picked up at computer fairs (notably the All Formats Computer Fairs) for £25 to £30. If you can get hold of one of these, the saving over buying one from an off-the-shelf drive supplier is probably worth thinking about.

Coloured judgment

1. Can you make multi-coloured CHR$? If so, how?
2. Can you buy ink-jet printers compatible with the Amstrad?
3. Please can you put *Crystal Kingdom Dizzy* and *Les Stars* on the covertape.

Jonathan Rylands
Leeds

1. Well, sort of. You can't actually define multi-coloured characters, but the effect can be achieved by using transparent printing mode (character 22 followed by character 1 to turn on, or 0 to turn off) and printing a different character for each colour. For example, this prints a three-coloured character:

```
10 PRINT CHR$(22); CHR$(1);
20 LOCATE 1,1: PEN 1: PRINT CHR$(129);
```

The right connections?

I bought an Amstrad 6128 in Germany a few years ago, then I sent off for a speech synthesiser from dk'Tronics which I thought would be good for the children. I found that when I received it, the port for the synth was too small. dk'Tronics inform me I have a 6128 Plus (apparently European models are) and to enable me to use my synth I have to buy a modifier which will cost me a tenner!

After all that... could you guide me to my next plan of action?

Should I have it modified, buy a mouse and other accessories so I and my kids can get the most of our machine, or...?

Please help – usually I'm a sane, logical person who deals with loads of things, but this is doin' my 'ead in!

Em McKie
Poole

Hmmm. It would be nice if all CPCs bought on the continent were Plus-es. Unfortunately, this isn't quite the case. Rather, some of these perfectly normal CPCs have Plus-type Amphenol connectors, to comply with the strict European radio interference laws (especially in Germany). These means that, to use British peripherals, you do need to buy a 'modifier' – or widget, as they are known to the initiated. Try WAVE on (0229) 870000.

Remember that very few programs use the speech synthesiser: you'll have to program it yourself. As to your next steps, a mouse is useful if you're really into computer art, otherwise pretty pointless: possible ideas could be a Multiface (to poke games and to back up tapes), a 3.5" drive with operating system (for cheap storage), a ROM-board (to let you use top ROM software like Protext), or even a flash new printer.

Don't buy things for the sake of it, though – much as hardware vendors would like you to think otherwise, your basic 6128 setup is still perfectly good!

Disobedient discs

I'm writing a machine code disc-based database. The program is held in a few parts, (main code and loading screen). It works fine on drive A, but I'm having problems when I try to run it from drive B: the computer looks for the files it needs to load on drive A, and complains because they're not there. What's wrong?

Steve Piper
Huntingdon

When initialised (by the firmware CALLs at &BCCB or &BCCE), the disc system resets itself to drive A, user 0.

There's no way of stopping it doing this, unfortunately. However, you can save the current drive settings, initialise the ROM, and then restore the settings again.

This isn't too difficult. The drive number is held in the first byte of AMSDOS workspace, and the user number in the next byte. To find out where this workspace is, take the word from &BE7D. So, all you need to do is get these two bytes from the start of the workspace, CALL &BCCE to initialise, and put them back. Here's how you'd do it:

```
ld ix,(&BE7D)               ;IX = workspace
                             location
ld l,(ix): ld h,(ix+1)      ;HL = two bytes
                             from the start
push hl                     ;preserve HL
                             against
                             corruption
 ld de,&40: ld hl,&B0FF     ;initialise the
                             AMSDOS ROM...
ld c,7: call &BCCE          ;...
pop hl                      ;retrieve HL
ld ix,(&BE7D)               ;get the new
                             workspace
                             location
ld (ix),l: ld (ix+1),h      ;and put the
                             two bytes back!
```

```
30 LOCATE 1,1: PEN 2: PRINT CHR$(130);
40 LOCATE 1,1: PEN 3: PRINT CHR$(140);
50 PRINT CHR$(22); CHR$(0);
```

2. Yes. Any printer at all (even laser printers) which have a Centronics parallel port will work on the CPC. For compatibility with most CPC programs, you need one capable of Epson emulation – that is, with the same controlling codes as an Epson dot-matrix printer. An ideal printer for these needs is the Canon BJ-10ex, a bubble-jet with Epson emulation and excellent quality output.

3. That would be nice. However, the software houses aren't likely to agree, because then they'd lose loads of sales of what are, after all, relatively current games: not unless AA paid them lots of money that we don't have...

Reincarnation

A few days ago I accidentally erased my only copy of the source code of a demo I'm writing (35k!). Now I can't load it, and the usual trick of renaming from user area 229 doesn't seem to work. It is on a 3.5" data format disc, which I haven't dared touch since. Any suggestions?

Tim Pertwee
York

Unfortunately, as you've discovered, the standard trick doesn't always work – especially with longer files. You can, however, use the fabulous, wonderful, marvellous DMON utility we gave away on the covertape to retrieve the file. Run DMON, insert the disc, and enter editing mode. Flick through the first track until you find the appropriate filename displayed, with a club symbol to its left. Edit this sector, and move the cursor to the line of the filename. It should begin 'E5': change this to read '00', and re-save the sector.

You will need to do this for every occurrence of the filename in the directory, so keep on looking until the filenames run out. A 35k program will have three occurrences: one for each of the two 16k chunks, and another for the 3k remainder. Hey presto: your file is back!

Author, author!

I have written a novel using my CPC and *Protext*. A publisher is interested in it, but won't handle it unless I supply it on a 3.5" PC disk. I have sent them a copy saved on my Siren 3.5" drive, but apparently it doesn't work. Is there any way I can get it onto a PC disk, or do I have to pay our local secretarial office a fat sum to type it all in on their Compaq PC?

Daphne Williamson
Exeter

There are several ways you can solve this problem. One way would be to run up a wire between the two machines (known as a serial link), but this is quite expensive and not really practical unless your CPC is near to the PC. This leaves you with two choices: either pay one of the many data transfer bureaux to convert your book onto a PC format disk (any which claim to cope with Amstrad PCW disks are okay), or buy a nifty little program for your CPC called 2-in-1.

You'll probably be looking at a £15 fee at a data transfer bureau anyway, so buying 2-in-1 at around a tenner more is a worthwhile investment: you can then carry out as many transfers as you like without future expense. Campursoft (041 554 4735) can sell you a copy.

As Protext *isn't very popular on other machines, your publisher will almost certainly not be able to make sense of the* Protext *document. You need to save it as ASCII, which as it contains only the text and no* Protext*-specific formatting information (ruler lines etc.), can be read by any word-processor. To do this from* Protext*, load your document, enter program mode (with the PROG command) and then re-save.*

RAMmed ROM

I have a Microstyle RAM-ROM, which I am not at all happy with. Sometimes, when I have it plugged in and am using *Protext*, I have accidentally entered either of the letters 'C' or 'E' as a command – an easy thing to do for clumsy typists like me when you want to enter the 'D' command for document mode. This causes the computer to crash. It does not happen if the RAM-ROM is unplugged, so I assume that it is its fault. Should I send it back, or is this a design fault? (I have *Protext* and *Maxam 1.5* on ROM, is it compatible with both of these?)

Terry Jones
London

Not the Terry Jones, surely...? Anyway, yes, the problem you are experiencing is a design fault. The RAM-ROM does not reset its memory when your CPC is switched on, and if certain combinations of bytes appear there, the CPC thinks that there is in fact a ROM in that location.

When you enter a 'C' or 'E' command, the computer searches through all the ROMs available – including the 'phantom' in the RAM-ROM. If it then finds it there, it jumps to where the ROM's command handler should be. Unfortunately, there is no command handler in the phantom ROM, which is filled with garbage, and so the machine crashes.

To remove these phantoms, enter Maxam*, select the ROM which is mapped in by the switches on the RAM-ROM (using the S command), and Edit from address &C000. Switch the left-most switch on the unit to the left, and hold the 'F' key down until the top row is full of 'FF's. Then turn the switch to the right, and quit* Maxam*. The CPC thinks there's no ROM in that 'socket', and stops finding commands there.*

Hey, kid, rock and roll

Some games I have (*Space Harrier* and *Super Cycle*), as well as some PD demos, are unusable because the screen is constantly rolling down the monitor. I have heard that there are different models of video chip in CPCs, could this be the problem? I have an Amstrad CPC 6128.

Phil Anderson
Bradford

Nothing so exotic, I'm afraid: there are different models of video chip, but that's not the problem. The down-to-earth answer is: adjust the vertical hold control on your monitor! Some software is more susceptible to the position of this than others, and it's perfectly possible that you won't have noticed it before. The control is at the front of green screen monitors (easy to get at), and the back of colour displays (a real pain!). Fiddle with it while the offending program is running, and stop when the display is okay.

Publish and be... rich?

I hope you can help me. I would like to start a fanzine, but since photocopying is expensive and unreliable, I would like to produce it on disc. Will this be easy? What programs do I need? How much should I charge for the fanzine?

Pete 'The Beat' Robins
Dartford

Anyone can produce a paper fanzine, but it →

takes quite a bit of effort to get it looking reasonably professional. Similarly, it's easy to produce a simple disc fanzine, but you'll need to put some work into it. Knowledge of machine code isn't strictly necessary but a reasonable knowledge of BASIC is, especially of its graphics and text facilities. The fanzine will also be much better if either you, or a friend, can draw and write music.

Three programs are pretty much essential: a disc copier (otherwise no-one will see your masterpiece), an art package, and a music program. There are plenty of good disc copiers in the public domain, the best being Crown's excellent Crime, which any PD library worth its salt should stock. Top art package is Advanced Art Studio (£17.95 from MJC Supplies, 0462 481166), which only runs on 128k machines: 64k owners will find GPaint (search through your pile of AA covertapes!) a good enough alternative. For music, well you've got BooTracker now, haven't you?

You won't become rich producing a CPC fanzine: stick to under a quid price-wise. Alternatively, you may want to follow the Continental approach and make your fanzine PD and completely free. You won't have to copy many, either – the PD libraries and the underground network will ensure it gets around.

First disc

I have just bought a second-hand 464, and I need some advice. I had hoped to buy a disc drive, but the local shop suggests I'll have to send to England for one. Do I have to order a particular model of drive, or will any disc drive do? I read in AA89 about disc drives: in particular I noted that S-DOS is the better disc drive. Would I be able to buy an S-DOS disc drive for my computer?

What sort of accessories would I need to buy to connect a drive to my 464? I have been told that it is very difficult to buy disc games for a 464 as they are usually 128k only, is this correct? I have also been told that I would find it very hard to buy games for a 3.5" disc drive.

Michael Hampton
Perth

Disc drives aren't easy to buy for 464s any more. You have to buy a drive that comes with an interface designed for the 464: otherwise the computer won't know what to do with the disc drive! The original Amstrad model, the DDI-1, is no longer in production: however, you may be able to pick one up second-hand (try the AA Small Ads) for around £60. This uses 3" discs, which are standard for the CPC: all CPC disc games use this size. However, blank 3" discs are expensive and difficult to get hold of.

Alternatively, you could buy a 3.5" disc drive from Siren Software (061 724 7572) for £160. Blank 3.5" discs are readily available and cheap, but since Amstrad games are supplied on 3" disc, Siren supply a nifty gadget called a Multiface, which transfers tape games to disc. (By the way, don't worry too much about 128k-only games. There are quite a few about, but the majority by far will work fine on your 464.)

S-DOS isn't a disc drive, but a program which lets you store more on a 3.5" disc than usual: in fact, you'd be looking at 180k per disc with the Siren drive, but S-DOS bumps this up to 400k, and with the addition of a cheap side switch from Avatar (on 0442 251705), a massive 800k.

S-DOS is available for £12.95 from STS Software (081 317 3536). It comes on a ROM (a type of silicon chip), which means that S-DOS is ready when your computer is switched on: to plug it in, you need a ROM-board, available from numerous suppliers who advertise in AA. This will also let you use other programs that are supplied on ROM, such as word-processors and programming utilities.

That's the end for another month. Just keep you techie queries flooding in and Richard'll keep answering them. He's that kind of guy. ●

Top Tips

Vanishing act

I've discovered a weird bug on my 464. If you enter the first line of your program as 10 REM followed by a space and a right-pointing arrow (press TAB), and make the next line anything at all (it won't get executed), the program will delete itself when you RUN it.

Make sure the program doesn't contain any GOTOs, because the program will try to GOTO a now non-existent line and stop in protest.

Nelson Armstrong
Glasgow

Very strange! By the way, 664 and 6128 owners will have to make do without this 'feature' – Locomotive Software seem to have fixed the bug for BASIC 1.1.

Program slimming

If you want to reduce the size of your BASIC programs, here's an ideal way to do it. It speeds them up as well, all without having to strip out any program code.

Save your program as ASCII (SAVE 'filename',A), and then POKE &AC00,1. Then re-load it. All the unnecessary spaces which you may have copied at the end of a line or, for example, inserted between the command and the inverted commas in a PRINT statement, have been stripped out. You can then re-save the program as per usual.

Another good way to speed programs up, if you don't use any floating point (ie not whole) numbers, is to put DEFINT a-z at the start. This tells the computer to treat all numbers as integers (whole), so saving a lot of messing about with unnecessary and complicated floating point arithmetic.

Stuart Skinner
Wolverhampton

The Shadows

Here's a good way to produce impressive text with the *GPaint* art package you supplied on an AA covertape. Enter your text using the 'text' option from the S menu, and place it on the screen. Move the cursor right by one pixel, and press R to repeat the operation. Move it right and press R again. Now move back by pressing cursor left twice, and move down a line.

Repeat this for the next two lines, so you have a really thick layer of text. Then move up to the original cursor position, and move up and left once. Change ink using the C key. Put another thick layer of text on, and move back to the first cursor position for this layer.

Finally, change ink using the C key again, and move down and right once. Now press R. You will have a really impressive 3D-shadow effect, which looks great for titles (especially on loading screens). By using a similar technique, many different effects are possible!

Matthew Khan
Powys

Tasword troubles

Are there any other frustrated *Tasword 6128* owners out there who have found, like me, that the program will not print codes 214–218 and 246–250 through an 8-bit printer port?

The reason for this is that *Tasword 6128* reserves the corresponding printer control codes (inverse V to Z and v to z) for use with *Tasprint*, which gives high quality print from a 9-pin printer. The way the program is written, these codes are stripped out before printing, and so some of the graphics available on modern printers cannot be accessed. Tasman Software were unable to give me any help, but I have found that the following patch will allow all the codes to be printed though, of course, *Tasprint* is no longer available.

Load up *Tasword* as usual, select B from the menu for BASIC, and type:

```
POKE 26279,151
POKE 26280,50
POKE 26281,40
POKE 26282,26
POKE 26283,241
POKE 26284,195
POKE 26285,243
POKE 26286,102
```

Finally, type RUN to re-enter *Tasword*. Now replace the disc with another and save the modified program with T from the main menu.

Since *Tasprint* has gone, the dedicated printer control codes can be used in any way you like, though they cannot be altered from the customise option, which only goes up to T. However, the codes (up to five for each letter) can be poked directly into memory, and the program re-saved as above. The starting places are (for upper case codes): 19848 for V, 19853 for W, 19858 for X, 19863 for Y, and 19868 for Z. For lower case codes, add 148 to these numbers (so lower case X is 20006).

I can't guarantee that there'll be no snags, but I haven't come across any since I installed it. Hope this will prove as valuable to other *Tasword* users as it has to me.

Tony Cullingworth
Slough

The Ultimate Competition

So you can't write computer games? I bet you've got a few good ideas though! Read on...

Your mission, should you decide to accept it, is to come up with a totally original (well, slightly original) concept for a CPC game, in just two months. Don't worry though, this page won't self destruct – you haven't finished reading it yet. You see, we've especially commissioned one of the best CPC programmers around to take the winning concept and turn it into a fully functioning game, ready for the covertape. But hurry up, as all entries must be with us by 30 June 1993.

That's right – you could have your name in lights (well, print anyway) and we'll probably chuck in a few other bits and pieces as well, just to make it worth your while. So, send your original ideas, with drawings if you want, to:

Hey, I'm A Games Designer
Amstrad Action
30 Monmouth Street
Bath
BA1 2BW

Rules:

- All entries in by the 30th of June
- The editors decision is final
- So there

The Programmer

So who have we got to turn your idea into a master game? Just take a look at some of these screenshots by way of a portfolio.





'I wonder,' Fat Fred mused, 'if these two idiots are ever going to get on with it.'



'Good grief,' he suddenly exclaimed. 'If I point over here, that one will fall over.'



'Whereas if I point straight up in the air, the other one falls down. This is amazing.'



'Mmm. But if I put both hands behind my back the first one falls over again. Tricky.'



'Oh, my word, if I crouch down a big blob appears.'



Selling Software

So you've written your masterpiece in software, and you've spent months polishing it until it's ready for sale. So what now? Simon Forrester takes you from here to commercial success...

So you want to get your program seen by the millions (well, 10s, at least)? Last month, we said you had three chances of doing just that. Well nothing's changed since last month. That's the fast world of the CPC for you.

Send It To A Software House

The average software house is simply a company that will take your program, duplicate it, print manuals, and sell it – be that by mail order (companies like Siren, Campursoft, etc), or direct to the retailer (companies like Codemasters, Alternative, etc, who will place your game in WH Smith's, Joe Bloggs' Computer Wares, Fred's Sprockets, etc).

In return for making profits from your software, the software house will give you some moolah. This is either in the form of a single payment or a royalty (a small chunk of the profit from each copy sold). You may be offered a combination of both, such as a small (but healthy) sum, followed by some more royalties once the money owed to you has exceeded that original sum you were paid.

One thing to bear in mind is that dough up-front suggests that the software house is pretty healthy (i.e. not broke), and that they're fairly sure your work is going to sell.

From that point on, the whole affair should be out of your hands. The only thing that you should be bothered with is spending the money that should pour through your door (hahahaha) from that moment onwards.

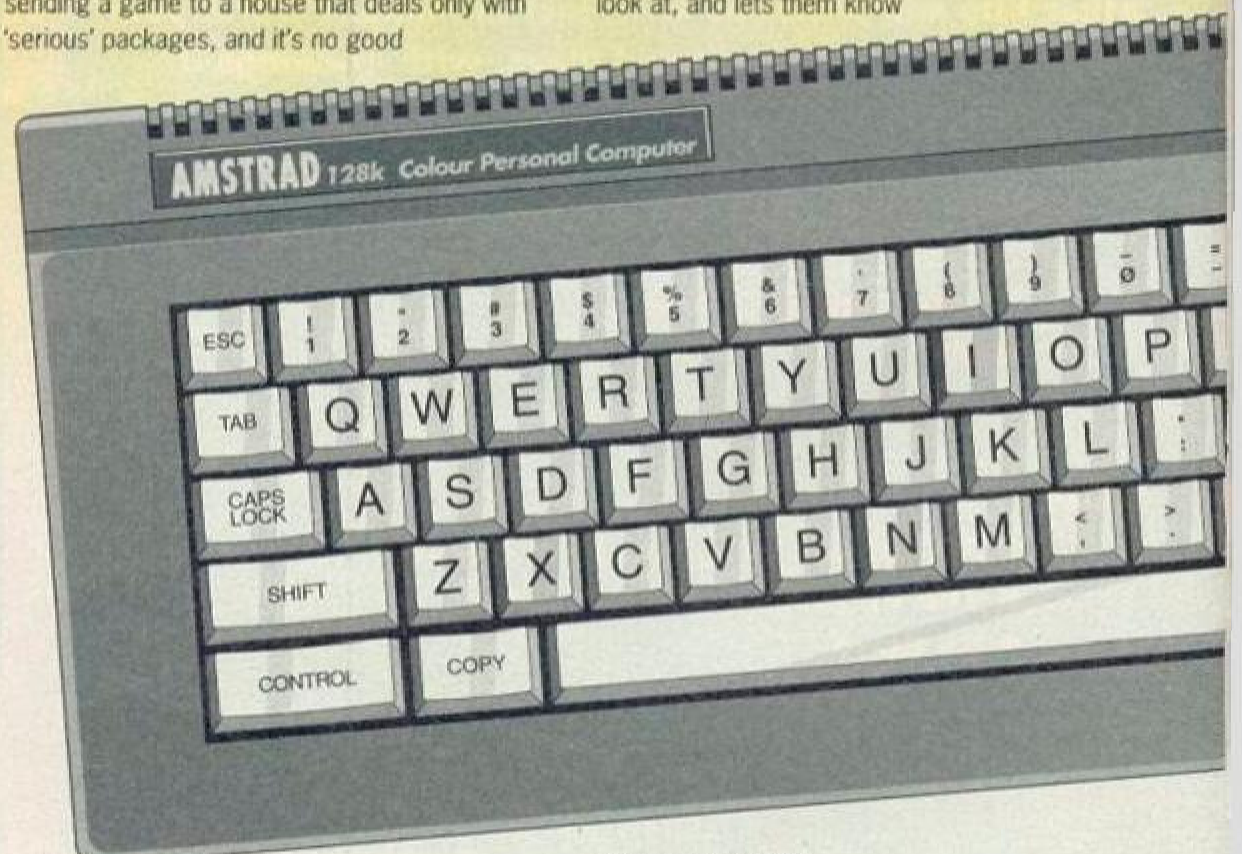
You may be offered a deal in which you must provide the software house with the duplicated copies. A word of warning: Never accept anything along those lines. It just means that the software house is not prepared to stake anything on your software, and they'd prefer you to do the donkey work.

Of course, some software houses actually commission a programmer to take on a project in the first place. However, software houses with sense will only do this with programmers they trust, and probably only programmers they've used before. Try sending a sample of your work though, as if they can see what you can do, they'll have a good idea of what (if anything – don't get your hopes up) they can send your way.

Guidelines

Let's not beat around the bush here – there are a good many dangers and pitfalls in dealing with software houses. Here are a few pointers to follow:

- Make sure you've selected a software house that's appropriate for your software. It's no good sending a game to a house that deals only with 'serious' packages, and it's no good sending your latest disc utility suite to, say, Codemasters.
- Make sure you submit software on disc – it makes software houses a lot more receptive, as they don't have to mess around with cassettes and silly loading systems. If, however, you don't have a disc drive, try to find someone that has, and get them to transfer it. If you really have to send anything on tape, make sure the tape you create works on other machines! There has been a recent example of a programming team who've produced a truly excellent game, but they couldn't get a working copy to any software house for them to see it!
- Try to include a 'fingerprint' somewhere within your code. If, then, you should come across a pirated version of your work, you can tell which copy it originated from – you should be able to tell from the fingerprint on the software which company it was sent to originally. Also go to great lengths to ensure that a pirate won't stumble across your fingerprint and remove it – that's defeated the object of the exercise.
- Phone the software company before sending anything along. This alerts whoever deals with new submissions to the fact that you are about to send them something that they really ought to look at, and lets them know you mean business.



- Don't get annoyed if the program comes back to you with a list of modifications to be made. Any software company worth it's salt will want the odd thing changing before they are ready to commit themselves.
- Any financial arrangements should be influenced by the effort you put into the software, and the size of the company. Most companies now would not be prepared to pay fortunes for any work, so bear that in mind. If you are desperately unhappy with the deal you have been

offered, shop around, and see what other people would be prepared to offer you.

- All final arrangements should be in writing, which you should sign. Without your written permission a software house cannot do anything with your work.
- If you wish, take out copyright protection measures on your software before sending it anywhere. This allows you to prove that the software was your work originally. The odds are you'll never need to play that kind of card, but if you do feel a little insecure, it's peace of mind. For copyright information, take a look at the box titled 'Right To Copy?'.

Right To Copy?

The subject of copyrighted code is always a tricky one. The whole point of the copyright system is to protect the original authors of any work against someone ripping them off and taking all the credit, money, and glory.

When you write a piece of software, you automatically own the copyright on that work. This means that if anyone starts selling your work without your permission, or if someone takes your work and puts their name on it, they are breaking the law. In a disputed situation, you may have to offer proof that you wrote the software. One example of such proof could be full developmental notes, for example.

Another method of proof is, before you send your work to anyone else, to send a copy by registered post to a morally respected figure of society (a lawyer, headmaster, doctor, etc) who is not a relative of yours. They must not open the package, but keep it safe, so that you have proof that you wrote the software (include your working notes as well) at that particular time (registered post is dated).

An even simpler way is to send the package to yourself, again leaving it unopened.

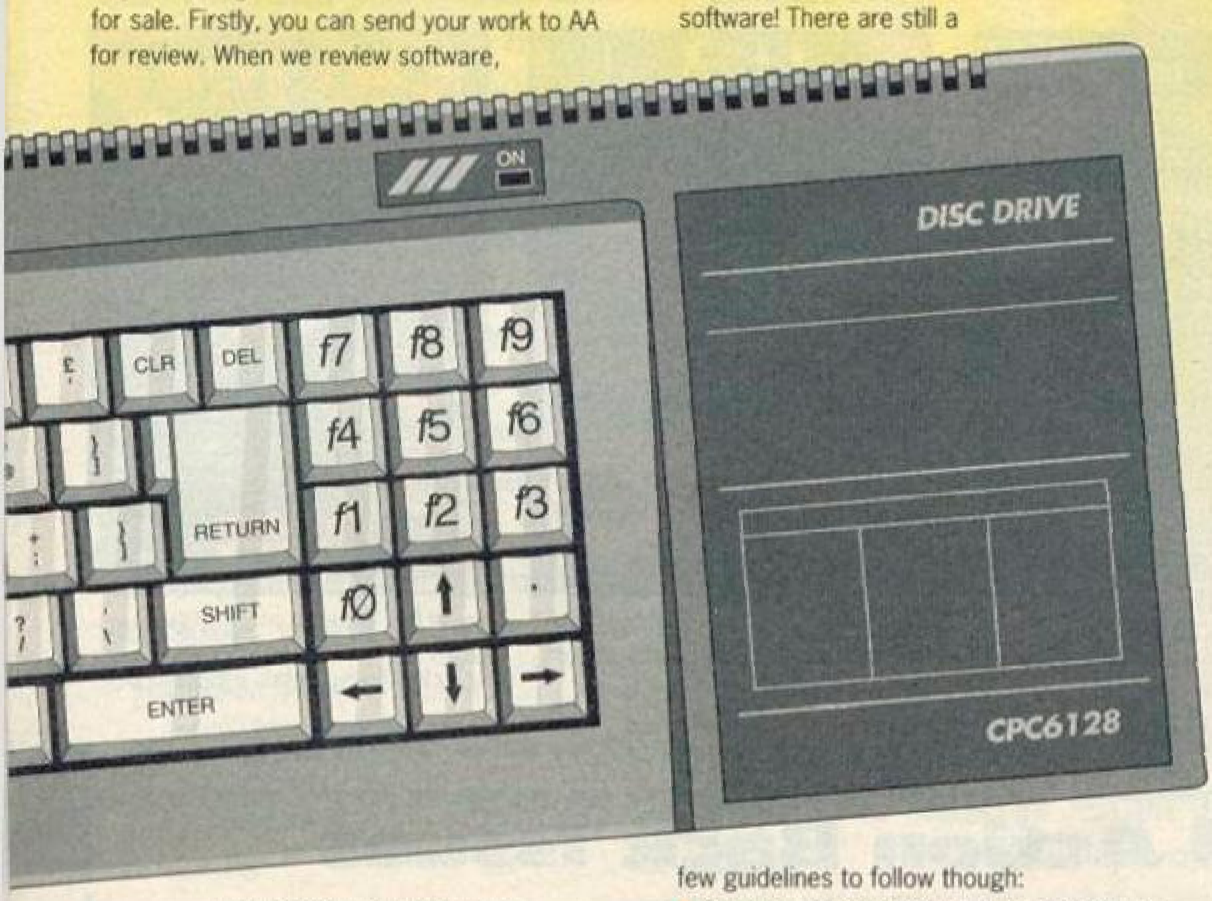
Of course, you may never end up in that strict a situation, but making it known that you do have proof of authorship could act as quite an effective deterrent to any potentially unscrupulous figures.

Sell It Yourself

Terrifying prospect, huh? This actually means (in effect) setting up your own software house. It also means that you can keep all the money you make for yourself, instead of having a software house take a cut – and it's not as difficult as you may at first think. It definitely doesn't involve a massive financial outlay, or any major commitment.

Right – down to basics. All you'll be doing as a software house is advertising the availability of your software, taking orders, and filling them by sending your program out to your customers.

So first off, the advertising. There are three ways of telling Joe Public that there's software for sale. Firstly, you can send your work to AA for review. When we review software,



we'll happily print the name, address, and even phone number of the software company if they wish. The down side of this is, of course, that your software has to be quite good – we'll be honest about a program and a bad review is worse than getting no publicity at all. But if your work is up to scratch, you've effectively picked up a free page of advertisement!

Your second advertising option is to take out an ad in the small ads pages. This is absolutely free, but you are limited in the amount of words you can put in your ad, and remember that they don't exactly attract people's attention being crammed in with a few hundred others.

The third way to advertise is to take out a real-life grown-up industrial ad. These can cost around £160 for a quarter page mono (black and white) ad in AA, so you really ought to consider all your options before you commit yourself, and make sure you know what you're getting into.

But one way or another, you'll have got your message through to the public. What now? Simply take the orders, and send out the software! There are still a few guidelines to follow though:

- Be sure of your product. Your best bet is to give a copy to a friend, and ask them to be really picky – they'll find glitches in your software that would have made it look like a totally amateur production.
- Get a bank account – you can't expect customers to send cash through the post, and you'll need some way to cash their cheques.
- Make sure you can fill any order a soon as possible. If you can't get the finished product back to the customer within 28 days, you may as well not bother with this whole software lark.
- Take out a post office box for a mailing address. This means you won't have any problems if you change address, or anyone you live with gets annoyed at all the mail and/or phone calls (even if you don't publish your number, the general public will get hold of it somehow). You can get full details on this kind of box at your local main post office.

Of course – your software house doesn't have to end there. Once you've become known on the scene (if you're releasing a piece of software, your name will spread), you might receive submissions from other authors, who want you to sell their software for them. If you are confident that you can do it, why not give it a try? After all, you've already ironed out the bugs of your sales scheme with your first release.

Give It To Public Domain

There are three main reasons why you should give your work to the public domain circuit.

- Your software isn't really up to the standard of full commercial sale.
- You don't really want to enter into the hassle of selling it yourself, and you couldn't find an interested software house.
- You're one of those people who believes in good quality software for the general CPCing masses, at very low prices.

Putting software into the public domain is very easy, as the scene is really quite accessible to anybody who wants to get involved. All you have to do is send your work along to a library, explaining that you want it to be public domain, and bingo! You won't get any money for your software (in case you didn't realise) as that would ruin the whole idea of public domain, but you do get recognition as a good programmer. ●



Back Issues

Sold out! Issues 1-65 • Still available! Issues 66, 75-82



Issue 84; On the tape: *Famous Five*, the complete game. Inside! Review of *Hideous*, Virtual Reality special, the best 3D CPC games and colour printing special.



Issue 85; A look at music-making on the Amstrad, a WIMP interface and a *PowerPage* tutorial. On t'tape, two full games – *On The Run* and *Link*.



Issue 86; Feature on Alternative's kid's TV licences plus review of the *Picasso* art package. On the tape – *Glider Rider* (full game), MIDI demo and three utilities.



Issue 87; Inside – the complete history of Dizzy and review of the Amstrad NC100 notepad. And! *Football Manager 3* reviewed. Full game of *Nexor* on the tape.



Issue 88; Two complete games on the tape – *Tankbusters* and *Penguins*. Inside, *Videomaster*, *Robin Hood: Legend Quest* and *Crystal Kingdom Dizzy* reviewed.



Issue 89; Inside – Buyers' Guide to disk drives, a look at CPC-stretching demos and *Crazy Cars 3* reviewed. Plus! *Wriggler* and three great utilities on the covertape.



Issue 90; The world's hugest collection of Multiface pokes (more than 478 of them). On the tape: *Steve Davis Snooker* (full game) and *LARA* (m/code utility).



Issue 91; All the dirt on who's doing what in the CPC world.HackIt black box of tricks reviewed. On the tape: *Tasword* (word processor) and *Colossus Chess 4*.

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AA/MAG/0593

Public Image

If you want to know the time, ask a policeman. If, on the other hand, you want to know all about the public domain, ask Tim Blackbond.

FANZINE NEWS

Amstrad Fun

Issue Four of Amstrad Fun (Ireland's ONLY fanzine) should be out by the time you read this (unless of course you have just found this issue in your attic in the year 2067, in which case I should think the magazine has long since closed down) not only has a review of the brand new *Zap 'T' Balls Advanced Edition* but also exclusive previews of *Super Cauldron* and maybe even *Prehistorik II*, both programmed by EGS (funnily enough, the same team that brought us *Zap 'T' Balls*).

Changes are afoot for Alive & Kicking in time for issue three (which should be available by the time you read this). The main difference will be the move from twenty-eight A5 pages to no less than thirty-four A4 pages. Also, Lee Rouane has managed to snap up an interview with Gremlin Graphics not to mention the full map and solution (along with a review) of *Crystal Kingdom Dizzy*. And for £1.25, it's a downright snip!

FRENCH IMPORTS... NUDGE, NUDGE, SAY NO MORE, ETC...

Derek Hyland of Amsof PD seems to have the monopoly on French PD these days. His library has now been topped up with another massive load of quality, machine code European software. Games, demos, utilities... Time for a short letter to Ireland.

FANZINE REVIEWS

CPC-USER

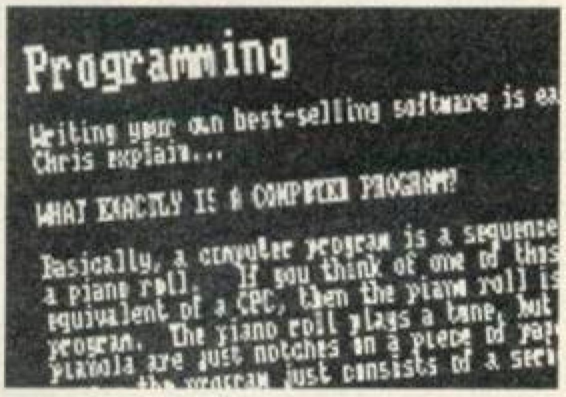
Editor: Steve Hayward
Price: Varies
MEMBERSHIP SECRETARY: 2 Wrenbeck Drive, Otley, W. Yorks LS21 2BR

For anybody who hasn't already heard of it, CPC User is the official magazine of the United Amstrad User Group. In fact, UAUG is Britain's largest and (given the fact that it was launched in 1986) longest-running CPC group around.

Each issue has approximately thirty-two A4 pages, plenty of space for news, reviews and still a bit left over for a sprinkling of tutorials, features and program listings. Each month you can build up, step by step, a complete database system – time for those back-issues. What's more, all the really technical bits are explained in such a way that beginners can understand what is going on without boring the boffins to death.

Not all of the magazine with be of interest to everybody, but there is definitely enough to keep even the fussiest of CPC owners happy until the next issue is released.

89%



Fanzam a go-go. This is the sort of thing you can expect from this new disc-zine. Not bad.

CEF & FANZAM

Editors: Matt Hall and Jez
Prices: 75p + 3" Disk
The Bungalow, Pershore Road, Pershore, Worcestershire, WR10 3EW

CEF & Fanzam is the co-production of two little-known fanzine editors. Have you ever heard of either of them? THAT'S how little known they were. Not only does it come with well over 20,000 words of CPC stuff, but there's also one disk side for PD and Homebrew programs.

The main menu is loaded with a natty logo of both magazines down the left hand side, while on the right there are no less than twenty scintillating items to choose from (including games reviews, programming, CP/M and letters – all the usual fanzine stuff). The magazine clearly states that it is NOT a demozine, which means there is the extra boon of there being no rasters in the background, making the text difficult to read (something which many people find amazing for some strange reason).

LOOSE TALK

PRESTO NEWS DIES

After several months of being its being unavailable, Matt Gullam has finally decided to close Presto News and call it a day, thus putting paid to the plans for it to become a disc-zine under the name 'Grace Under Pressure' (inspired by a Rush album, trivia fans).

Matt said that the magazine was taking too much of his time when he should be running the library, and then, of course, there's his teacher training course.

Fans of Presto PD needn't worry, the library is still alive. In fact, several new additions have been made. Write to him at the address given in The Directory.



Alas, poor Presto. I knew it, Horatio; a fanzine of infinite jest, of most excellent fancy.



Not bad at all. It certainly didn't come from Title Screens R Us as so many of them do.



SO WHAT ARE THOSE PRICES THEN?

UAUG runs by annual subscriptions, however sample copies can be obtained for the low price of £1.25. The membership rates go thus:

New members: UK: £8.00 – Europe: £11.00 – Overseas: £15.25

Renewals: UK: £7.50 – Europe: £10.50 – Overseas: £14.75

The software on the disk includes an brilliant version of Pipe Mania containing nine difficult levels of plumbing mayhem! 75p is a small price to pay for this game alone, the rest of the software and the magazine is a bonus!

In fact out of the very few British disk-zines available, this is by far and away the best one.

92%

THE MAILBAG

Those letters keep on coming! To air your views related to the Public Domain scene, write them down, bung them in an envelope and send them to: Tim Blackbond (Public Image), Amstrad Action, 30 Monmouth Street, Bath BA1 2BW

A POTENTIAL NEW LIBRARY

Q: I am thinking of starting a PD library. I have a great deal of problems when I want to buy full price games as most of the shops I go to have stopped stocking Amstrad games. I can't be the only one with these problems so is it all right to sell full-price games games in my library?

DARREN DODDS
NEWCASTLE-UPON-TYNE

You can't distribute commercial software in a PD library, not without getting arrested for software piracy.

COMMERCIAL BLUES

Reading your article in this months AA about commercial software, a sudden chill crept down my spine – I have a great deal of commercial games in my catalogue, all of which came from libraries like Scull (now Domain), Dartsma, etc and I was very worried that they may not be PD, and so who better to turn to but you? I have sent you a copy of GAM07 and GAM08 which contain my commercial material, I would appreciate it if you could assess them for 'PD-ness'. If you find them not to be PD, I feel you should warn PD buyers not to accept such programs from ANY library. I hope you can help me and other librarians in the same boat as me (Sounds like PD has contacted me and is concerned about the Glenco Software Sprites Alive demos).

SIMON WALKER
PD FUN

I've looked through the discs, and YES! There are just a few programs that shouldn't really be there, namely Smiley vs. Grumpies, 3D Four In A Row *and* Anna Conda. *These come from Computing With The Amstrad and even though this magazine is closed, Europress (the original publishers) can still kick up a lot of trouble about it.* 3D Four In A Row *was actually published only as a special program on one of the CwtA postal cover-cassettes.*

As for the Glenco software, you needn't worry. These were made PD by Alan Scully who took time is checking out the full law surrounding them, and has even got Glenco's written permission.

WHAT'S IN A NAME?

Q: I'm just writing to say that I am starting a fanzine called 'Syntax Error'. It will be about a range of subjects such as games, serious and public domain. I will send you a copy when it is finished.

DONNISON LAING

Stop! I suggest you re-think a name for your magazine as there's already a magazine using that title. It is produced in France, and is therefore all in French but it is still 'Syntax Error'. I think there is even a European demo coder with the pseudonym 'Syntax Error', so there'll be mass-confusion all round.



Er... Well, this is a bit of the screen from Fanzam, really. What else is there to say?

SOFTWARE REVIEW

PERPETUAL

By Robin Gilbert
Pipeline Software: £4
9 Brynglas Terrace, Pyle, Bridgend, South Wales, CF33 6AG

Perpetual is a space shoot-em-up involving, erm... Blowing the living daylights out of a variety of aliens. Not high on the originality stakes, but



That all-important menu screen from the new disc-zine. It looks moderately groovy.

then what is these days?

The game is simple. Kill all the nasties and go to the next level. That's the winning formula that has provided millions of other shoot-'em-ups. There's also a shop where you can buy ship add-ons in order to cause even more devastation to the so called 'hostile' alien races.

In the first few games, the irritating unavoidable deaths quickly take your lives due to the speed of your ship and that of the aliens. Once you have the hang of it, it becomes a very enjoyable and challenging game, enough to keep the kids off the streets for quite a number of days.

81%

Get Involved

Following on from the whole reader action 'thang' and our attempts to get you involved in the CPC scene, we've decided to extend the atmosphere as far as the PD world. So...

If you've just started a PD library, write in and let us know. If you've written some software, send it along.

Fledgling libraries need a lot of publicity these days, and they can get this through the pages of Public Image.

At some point in the very near future, either as a part of Public Image or as a Reader Action subject, we'll be covering starting your own PD library, with the path to follow, pitfalls to avoid, and a few stories about the birth of established libraries. So if you've got an angle on this topic you think we should cover, write to:

Reader Action
Amstrad Action
30 Monmouth Street
Bath
BA1 2BW

Do it now. ●

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Type-ins

Tim Blackbond sorts through this month's type-ins, and finds some more nice little games, and no less than two wonderful disc utilities...

Directory Editor

By John Tompson

Setting the filestatus of a directory can be a bally irritating task. Unless of course, you have a decent Directory Editor, which is what this program is. It allows files to be undeleted, hidden, set to read only and renamed All with full screen instructions.

```
HABM 10·REM·Directory·Editor
HAII 20·REM·by·John·Thompson
EALF 30·REM···(c)·DEC·1991
BAIG 40·REM
EAIM 50·REM·Main·Loop
BAKG 60·REM
IAGA 70·GOSUB·240:REM·Initialise
IAAB 80·GOSUB·560:REM·Log·New·Disc
OAHI 90·GOSUB·800:REM·Print·Directory·Informa
     tion
MAFI 100·GOSUB·930:REM·Enter·Directory·Editor
BAGJ 110·REM
IAAM 120·REM·Log·New·Disc·or·Exit?
BAIJ 130·REM
MBGH 140·PRINT·#2,CHR$(24);"··DO·YOU·WISH·TO·
     [L]OG·NEW·DISC··[R]ETURN·TO·EDITOR··[S]A
     VE·DIRECTORY··[Q]UIT···";CHR$(24);
JAID 150·IF·INKEY(36)<>-1·THEN·CLS·#2:GOTO·80
BBJN 160·IF·INKEY(50)<>-1·THEN·CLS·#2:IF·PEEK
     (errorflag)<>0·THEN·90·ELSE·100
LABJ 170·IF·INKEY(60)<>-1·THEN·s=1:GOSUB·1530
     :GOTO·140
KAOH 180·IF·INKEY(67)<>-1·THEN·GOSUB·1530:GOT
     O·140
CAJK 190·GOTO·150
BAJI 200·END
```

Pilltris

By James Bland

Have you seen *Dr Mario*? Well, if you haven't you are about to see a pretty close version of the game. The idea is much like that of *Tetris* – Small two-colour pills fall from the top of the screen and before they land you must manoeuvre them to land on matching colours. It's all very complex, but great fun!

```
DALD 10·'·PILLTRIS
AAJK 20·'
EANG 30·'·JAMES·BLAND·'92
AALK 40·'
IANA 50·MODE·1:INK·0,0:PAPER·0:BORDER·0
MAHG 60·rdn=4:plu=0:hire=12:pills=100-(hire*6
     )
FAJO 70·INK·1,2:INK·2,24:INK·3,6
MAJC 80·LOCATE·19,20:PRINT·pills;"·":SYMBOL·A
     FTER·32
JBMN 90·SYMBOL·123,126,254,254,254,254,254,12
     6,0:SYMBOL·125,252,254,254,254,254,254,2
     52,0:SYMBOL·64,254,186,254,186,214,238,2
     54,0
JAHN 100·cl$=CHR$(15)+"1"+"{":cr$=CHR$(15)+"1
     "+"}"
KAGA 110·yl$=CHR$(15)+"2"+"{":yr$=CHR$(15)+"2
     "+"}"
JABP 120·ml$=CHR$(15)+"3"+"{":mr$=CHR$(15)+"3
     "+"}"
LACC 130·cc$=cl$+cr$:cy$=cl$+yr$:cm$=cl$+mr$
LAHK 140·yc$=yl$+cr$:yy$=yl$+yr$:ym$=yl$+mr$
LAAG 150·mc$=ml$+cr$:my$=ml$+yr$:mm$=ml$+mr$
JBFM 160·FOR·x=17·TO·24:FOR·y=hire·TO·18:pt=I
     NT(RND*rdn)+plu:PEN·pt:LOCATE·x,y:PRINT"
     @":NEXT·y,x
KAJH 170·timer=1:x=20:y=1:top=392:bum=382
LAIF 180·'·This·"REM"·is·put·in·to·do·nowt.
IAMD 190·lm=308:rm=328:lo=292:ro=340
EACL 200·pt=INT(RND*9)+1
LDEH 210·IF·pt=1·THEN·r$=cc$·ELSE·IF·pt=2·THE
     N·r$=cy$·ELSE·IF·pt=3·THEN·r$=cm$·ELSE·I
     F·pt=4·THEN·r$=yc$·ELSE·IF·pt=5·THEN·r$=
     yy$·ELSE·IF·pt=6·THEN·r$=ym$·ELSE·IF·pt=
     7·THEN·r$=mc$·ELSE·IF·pt=8·THEN·r$=my$·E
     LSE·IF·pt=9·THEN·r$=mm$
GAGC 220·LOCATE·x,y:PRINT·r$
FBKH 230·FOR·tx=16·TO·16:FOR·ty=1·TO·18:PEN·3
     :LOCATE·tx,ty:PRINT·CHR$(149):NEXT·ty,tx
EBLA 240·FOR·tx=25·TO·25:FOR·ty=1·TO·18:LOCAT
     E·tx,ty:PRINT·CHR$(149):NEXT·ty,tx
OACE 250·LOCATE·16,19:PRINT·CHR$(147):LOCATE·
     25,19:PRINT·CHR$(153)
EBDE 260·FOR·tx=17·TO·24:FOR·ty=19·TO·19:LOCA
     TE·tx,ty:PRINT·CHR$(154):NEXT·ty,tx
EACE 270·codfish=39
PAAC 280·timer=timer+1:IF·timer>codfish·THEN·
     GOTO·470
FACC 290·a$=UPPER$(INKEY$)
EAJK 300·IF·a$="X"THEN·370
HAEM 310·IF·a$=CHR$(8)AND·x>17·THEN·410
HAEM 320·IF·a$=CHR$(9)AND·x<23·THEN·440
IAJH 330·IF·a$=CHR$(10)THEN·codfish=3
IAEL 340·IF·a$=CHR$(11)THEN·codfish=39
EAMJ 350·IF·a$="F"THEN·550
CAMK 360·GOTO·280
LBLE 370·IF·r$=cc$·THEN·r$=yy$:GOTO·400·ELSE·
     IF·r$=cy$·THEN·r$=ym$:GOTO·400·ELSE·IF·r
     $=cm$·THEN·r$=yc$:GOTO·400
LBKG 380·IF·r$=yc$·THEN·r$=my$:GOTO·400·ELSE·
     IF·r$=yy$·THEN·r$=mm$:GOTO·400·ELSE·IF·r
     $=ym$·THEN·r$=mc$:GOTO·400
LBJC 390·IF·r$=mc$·THEN·r$=cy$:GOTO·400·ELSE·
     IF·r$=my$·THEN·r$=cm$:GOTO·400·ELSE·IF·r
     $=mm$·THEN·r$=cc$:GOTO·400
IADF 400·LOCATE·x,y:PRINT·r$:GOTO·280
KAIP 410·ou=TEST(lo,top):in=TEST(lm,top)
OAOC 420·IF·ou=in·THEN·430·ELSE·IF·ou=0·THEN·
     430·ELSE·GOTO·280
FBOL 430·x=x-1:lo=lo-16:lm=lm-16:rm=rm-16:ro=
     ro-16:LOCATE·x,y:PRINT·r$+"·":GOTO·280
LAHA 440·ou=TEST(ro,top):in=TEST(rm,top)
OAHD 450·IF·ou=in·THEN·460·ELSE·IF·ou=0·THEN·
     460·ELSE·GOTO·280
GBGE 460·x=x+1:lo=lo+16:lm=lm+16:rm=rm+16:ro=
     ro+16:LOCATE·(x-1),y:PRINT"·"+r$:GOTO·28
     0
BCNH 470·LOCATE·19,20:PEN·2:PRINT·pills;"·":t
     imer=1::tl=TEST(lm,top):tr=TEST(rm,top):
     bl=TEST(lm,bum):br=TEST(rm,bum)
ACLN 480·IF·tl=bl·AND·tr=br·THEN·540·ELSE·IF·
     bl=0·AND·br=0·THEN·540·ELSE·IF·bl=0·AND·
     br=tr·THEN·540·ELSE·IF·br=0·AND·bl=tl·TH
     EN·540
MAAA 490·lm=308:rm=328:lo=292:ro=340:SOUND·1,
     100,2,15
OAFD 500·timer=1:x=20:y=1:top=392:bum=382:cod
     fish=44
EAGL 510·pt=INT(RND*9)+1
LDIH 520·IF·pt=1·THEN·r$=cc$·ELSE·IF·pt=2·THE
     N·r$=cy$·ELSE·IF·pt=3·THEN·r$=cm$·ELSE·I
     F·pt=4·THEN·r$=yc$·ELSE·IF·pt=5·THEN·r$=
     yy$·ELSE·IF·pt=6·THEN·r$=ym$·ELSE·IF·pt=
     7·THEN·r$=mc$·ELSE·IF·pt=8·THEN·r$=my$·E
     LSE·IF·pt=9·THEN·r$=mm$
EBIC 530·LOCATE·x,y:PRINT·r$:pills=pills-1:IF
     ·pills=0·THEN·570·ELSE·GOTO·280
MBNM 540·IF·y=18·THEN·490·ELSE·y=y+1:bum=bum-
     16:top=top-16:LOCATE·x,y:PRINT·r$:LOCATE
     ·x,(y-1):PRINT"··":GOTO·280
LCBP 550·hire=hire-1:codfish=39:pills=100-(hi
     re*6):IF·hire=4·AND·plu=0·THEN·hire=10:r
     dn=3:plu=1:CLS:GOTO·70·ELSE·IF·hire=4·AN
     D·plu=1·THEN·560·ELSE·CLS:GOTO·70
BAAL 560·RUN
MAID 570·CLS:LOCATE·4,12:PRINT"You·fluffed·it
     !!!!"
FAKL 580·IF·INKEY$<>""THEN·580
BADL 590·RUN
```



If I had a penny for every minute I'd wasted playing games like this I'd have 37 pence by now.

```
BAHJ 210·REM
FADM 220·REM·Initialise
BAJJ 230·REM
MAJL 240·MODE·2:ZONE·8:CALL·&BC02:BORDER·10:I
     NK·0,10:INK·1,0
GAIL 250·IF·PEEK(&8000)=&DD·THEN·310
MABD 260·RESTORE·430:chk=0:FOR·n=&8000·TO·&80
     5F:READ·a$
JAIJ 270·a=VAL("&"+a$):POKE·n,a:chk=chk+a
BAJP 280·NEXT
HBOH 290·IF·chk()9323·THEN·CALL·&BC02:MODE·2:
     PRINT·"CHECKSUM·ERROR·-·CHECK·LINES·1050
     -1200",CHR$(7):END
JABM 300·CALL·&8000:REM·Initialise·Code
ABDP 310·sector=&805B:drive=&805C:track=&805D
     :errorflag=&805E
ABIK 320·readdir=&8023:writedir=&8039:raddr=&
     8029:waddr=&803F
FAMB 330·xx=0:yy=0:c$="."
OAND 340·LOCATE·31,1:PRINT·CHR$(24);"·DIRECTO
     RY·EDITOR·";CHR$(24)
NABM 350·LOCATE·60,1:PRINT·CHR$(164);"·1991·J
     ohn·Thompson"
HAKL 360·LOCATE·62,25:PRINT·"FORMAT:"
JAPH 370·WINDOW·#1,1,80,3,18:WINDOW·#2,1,80,2
     0,20
IBMN 380·LOCATE·7,22:PRINT·"f1·";CHR$(230);"·
     READ/WRITE","f2·";CHR$(230);"·DIRECTORY"
     ,"f3·";CHR$(230);"·AVAILABLE"
KBFL 390·LOCATE·10,23:PRINT·CHR$(231);"·READ·
     ONLY","···";CHR$(231);"·SYSTEM","···";CH
     R$(231);"·ERASED","CONTROL+COPY:·MENU"
OAKE 400·MOVE·25,24:DRAWR·590,0:DRAWR·0,48:DR
     AWR·-590,0:DRAWR·0,-48
JAIO 410·header=PEEK(&BE40)+PEEK(&BE41)*256+1
     0
GAAL 420·WINDOW·SWAP·1,0:RETURN
HAFP 430·DATA·DD,21,53,80,21,59,80,CD,D4,BC
HALN 440·DATA·DD,71,02,DD,74,01,DD,75,00,21
IAJC 450·DATA·5A,80,CD,D4,BC,DD,71,05,DD,74
HAGN 460·DATA·04,DD,75,03,C9,3E,00,32,5E,80
HAGO 470·DATA·21,00,78,ED,5B,5C,80,3A,5B,80
HAKN 480·DATA·4F,DF,53,80,30,17,C9,3E,00,32
HALO 490·DATA·5E,80,21,00,78,ED,5B,5C,80,3A
HAGN 500·DATA·5B,80,4F,DF,56,80,30,01,C9,32
HAGI 510·DATA·5E,80,C9,00,00,00,00,00,00,84
FAKB 520·DATA·85,00,00,00,00,00
BAMJ 530·REM
FAMM 540·REM·Log·New·Disc
BAOJ 550·REM
HAKD 560·CLS:WHILE·INKEY$()"":WEND
JAHF 570·LOCATE·33,7:PRINT·"INSERT·DISC·IN"
IAAJ 580·LOCATE·35,8:PRINT·"DRIVE·[A/B]"
JAOO 590·IF·INKEY(69)=0·THEN·|A:dr=0:GOTO·620
JACO 600·IF·INKEY(54)=0·THEN·|B:dr=1:GOTO·620
CAOK 610·GOTO·590
DBMA 620·sectornum=PEEK(PEEK(header+16*dr)+PE
     EK(header+16*dr+1)*256+15)
DBBI 630·IF·sectornum=&41·THEN·LOCATE·#1,70,2
     5:PRINT·#1,"SYSTEM···":tr=2:GOTO·680
DBEA 640·IF·sectornum=&C1·THEN·LOCATE·#1,70,2
     5:PRINT·#1,"DATA·····":tr=0:GOTO·680
NADN 650·CLS:LOCATE·30,7:PRINT·CHR$(7);"UNREC
     OGNISED·FORMAT"
OAPB 660·LOCATE·34,9:PRINT·"PRESS·A·KEY":WHIL
     E·INKEY$()"":WEND
IABB 670·WHILE·INKEY$="":WEND:GOTO·560
JAJN 680·POKE·track,tr:POKE·drive,dr
MAPH 690·FOR·s=0·TO·3:POKE·sector,sectornum+s
FADM 700·buffer=&7800+512*s
ABIA 710·POKE·raddr,buffer·MOD·256:POKE·raddr
     +1,buffer\256
EAAN 720·CALL·readdir
BAJP 730·NEXT
DABL 740·xx=0:yy=0
JCAF 750·IF·PEEK(errorflag)()0·THEN·PRINT·#2,
     CHR$(24):CLS·#2:LOCATE·#2,34,1:PRINT·#2,
     CHR$(7);"READ·FAILURE";:t=TIME:WHILE·TIM
     E-t(500:WEND:PRINT·#2,CHR$(24):CLS·#2:GO
     TO·560
CANJ 760·RETURN
BACK 770·REM
MALE 780·REM·Print·Directory·Information
BAEK 790·REM
DAEH 800·CLS:n=&7800
IABI 810·WHILE·PEEK(n+1)()&E5·AND·n(&7FE0
BBPO 820·FOR·a=1·TO·8:PRINT·CHR$(1);CHR$((PEE
     K(n+a)·OR·128)-128);:NEXT:PRINT·".";
CBEB 830·FOR·a=9·TO·11:PRINT·CHR$(1);CHR$((PE
     EK(n+a)·OR·128)-128);:NEXT:PRINT·"·";
ABAE 840·IF·PEEK(n+9))127·THEN·PRINT·CHR$(231
     );"·";·ELSE·PRINT·CHR$(230);"·";
ABJG 850·IF·PEEK(n+10))127·THEN·PRINT·CHR$(23
     1);"·";·ELSE·PRINT·CHR$(230);"·";
ABDC 860·IF·PEEK(n)=&E5·THEN·PRINT·CHR$(231);
     "··";·ELSE·PRINT·CHR$(230);"··";
DAAN 870·n=n+32:WEND
GAMG 880·entries=(n-&7800)/32
CABK 890·RETURN
BANJ 900·REM
HAKP 910·REM·Directory·Editor
BAPJ 920·REM
HAPC 930·PRINT·CHR$(23);CHR$(1);:TAG
MADF 940·MOVE·(xx*20)*8,366-yy*16:PRINT·STRIN
```



But hey, it's dead interesting, exciting and useful. No, really. Would we lie to you?

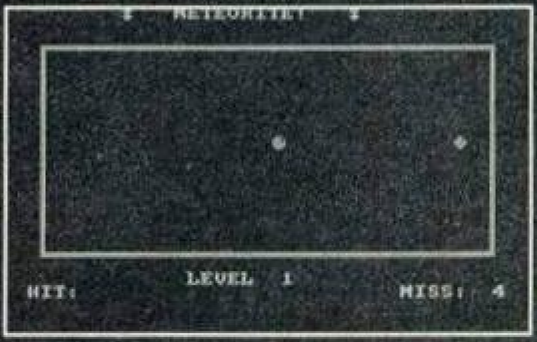
```
     G$(12,143);
NADA 950·IF·INKEY(1)=0·THEN·GOSUB·1110:xx=xx+
     1:GOSUB·1070
NAMA 960·IF·INKEY(8)=0·THEN·GOSUB·1110:xx=xx-
     1:GOSUB·1060
NAJA 970·IF·INKEY(0)=0·THEN·GOSUB·1110:yy=yy-
     1:GOSUB·1060
NAKA 980·IF·INKEY(2)=0·THEN·GOSUB·1110:yy=yy+
     1:GOSUB·1060
OAFN 990·IF·INKEY(13)=0·THEN·opt=0:GOSUB·1130
     :REM·Read/Write
BBJK 1000·IF·INKEY(14)=0·THEN·opt=1:GOSUB·113
     0:REM·Directory/System
LAMA 1010·IF·INKEY(5)=0·THEN·GOSUB·1190:REM·E
     rase
KAJD 1020·IF·INKEY(8)=32·THEN·cur=11:GOSUB·12
     70
KABA 1030·IF·INKEY(1)=32·THEN·cur=0:GOSUB·127
     0
MADF 1040·IF·INKEY(9)=128·THEN·GOSUB·1110:TAG
     OFF:RETURN
CANN 1050·GOTO·950
NAPN 1060·IF·yy*4+xx+1)entries·THEN·yy=yy-1:G
     OTO·1080
LAAI 1070·IF·yy*4+xx+1)entries·THEN·xx=xx-1
GACO 1080·IF·yy(0·THEN·yy=yy+1
FAJM 1090·IF·xx)3·THEN·xx=3
FAJL 1100·IF·xx(0·THEN·xx=0
OADJ 1110·MOVE·(xx*20)*8,366-yy*16:PRINT·STRI
     NG$(12,143);:RETURN
PAJG 1120·REM·Read/Write·-·System/Directory·T
     oggles
NAMH 1130·nn=&7800+9+opt+xx*32+yy*128:a=PEEK(
     nn):TAGOFF
IAOB 1140·LOCATE·xx*20+14+opt*2,yy+1
EBCE 1150·IF·a)127·THEN·POKE·nn,a-128:PRINT·C
     HR$(230)·ELSE·POKE·nn,a+128:PRINT·CHR$(2
     31)
IADH 1160·t=TIME:WHILE·TIME-t(40:WEND
DAPN 1170·TAG:RETURN
DAON 1180·REM·Erase
LAAK 1190·nn=&7800+xx*32+yy*128:a=PEEK(nn):TA
     GOFF
GAFE 1200·LOCATE·xx*20+18,yy+1
CBEM 1210·IF·a=&E5·THEN·POKE·nn,0:PRINT·CHR$(
     230)·ELSE·POKE·nn,&E5:PRINT·CHR$(231)
IAAH 1220·t=TIME:WHILE·TIME-t(40:WEND
DAMN 1230·TAG:RETURN
BALM 1240·REM
HAGC 1250·REM·Edit·Filenames
BANM 1260·REM
MAAI 1270·MOVE·(xx*20)*8,366-yy*16:PRINT·STRI
     NG$(12,143);
IAEP 1280·WHILE·INKEY$()"":WEND:GOSUB·1470
JBNG 1290·IF·INKEY(8)=32·THEN·GOSUB·1470:cur=
     MAX(cur-1,0):IF·cur=8·THEN·cur=7:GOSUB·1
     470·ELSE·GOSUB·1470
JBOI 1300·IF·INKEY(1)=32·THEN·GOSUB·1470:cur=
     MIN(cur+1,11):IF·cur=8·THEN·cur=9:GOSUB·
     1470·ELSE·GOSUB·1470
HAHF 1310·MID$(c$,1,1)=UPPER$(INKEY$)
IBEG 1320·IF·INSTR("ABCDEFGHIJKLMNOPQRSTUVWXY
     Z0123456789·!#$&'+-@↑`{}""+CHR$(34),c$)(
     )0·THEN·GOSUB·1390
PAHF 1330·IF·INKEY(8)=0·THEN·GOSUB·1470:xx=xx
     -1:GOSUB·1060:RETURN
PAPE 1340·IF·INKEY(1)=0·THEN·GOSUB·1470:xx=xx
     +1:GOSUB·1060:RETURN
PAFF 1350·IF·INKEY(0)=0·THEN·GOSUB·1470:yy=yy
     -1:GOSUB·1060:RETURN
PAGF 1360·IF·INKEY(2)=0·THEN·GOSUB·1470:yy=yy
     +1:GOSUB·1060:RETURN
IADH 1370·t=TIME:WHILE·TIME-t(10:WEND
DABB 1380·GOTO·1290
JAAF 1390·TAGOFF:PRINT·CHR$(23);CHR$(0);:TAG
LAFF 1400·MOVE·((xx*20)+cur)*8,366-yy*16:PRIN
     T·c$;
MAGF 1410·curs=cur:IF·cur)7·THEN·curs=curs-1
LAPO 1420·nn=&7800+1+curs+xx*32+yy*128:a=PEEK
     (nn)
OAKH 1430·IF·a)127·THEN·POKE·nn,ASC(c$)+128·E
     LSE·POKE·nn,ASC(c$)
LAAL 1440·cur=MIN(cur+1,11):IF·cur=8·THEN·cur
     =9
LAEP 1450·TAGOFF:PRINT·CHR$(23);CHR$(1);:TAG:
     GOSUB·1470
GAEE 1460·MID$(c$,1,1)=".":RETURN
MAPL 1470·MOVE·((xx*20)+cur)*8,366-yy*16:PRIN
     T·CHR$(143);
CANM 1480·RETURN
MABM 1490·MOVE·((xx*20)+cur)*8,366-yy*16:PRIN
     T·CHR$(143);
BAKM 1500·REM
HAPE 1510·REM·Save·Directory
BAMM 1520·REM
GAAG 1530·PRINT·#2,CHR$(24):CLS·#2
MCAL 1540·IF·s=1·THEN·LOCATE·#2,15,1:PRINT·#2
     ,"WARNING:·SAVING·WILL·OVERWRITE·THE·CUR
     RENT·DIRECTORY"·ELSE·LOCATE·#2,17,1:PRIN
     T·#2,"WARNING:·HAVE·YOU·SAVED·ANY·CHANGE
     S·YOU·HAVE·MADE?"
IAHK 1550·t=TIME:WHILE·TIME-t(500:WEND
GAPE 1560·WHILE·INKEY$()"":WEND
ABPF 1570·CLS·#2:LOCATE·#2,25,1:PRINT·#2,"DO·
     YOU·WISH·TO·PROCEED?·[Y/N]";
MANE 1580·IF·INKEY(43)=0·THEN·IF·s=1·THEN·161
     0·ELSE·CALL·0
MAPM 1590·IF·INKEY(46)=0·THEN·PRINT·#2,CHR$(2
     4):s=0:RETURN
DAOA 1600·GOTO·1580
```

Meteorite

From Hawk PD

It's the usual story: Flying around in deep space looking for nothing in particular when all of a sudden the red 'Meteor Alert' light flashes and you're in the thick of a barrage of rocks. Use the joystick to aim the sight and then, surprisingly, fire to fire the lasers. Look out for the lasers overheating...

```
DAHH 10·'METEORITE!
HBNB 20·'WRITTEN·FOR·HAWK·PD·CASSETTE·LIBRARY
     ····23·SYWELL·AVENUE,·LOUGHBROUGH,·LEICS
     ····LE11·0BU
AAKK 30·'
FBCN 40·GOSUB·700:CB=75:LEV=8:INK·0,0:INK·1,1
     4:INK·2,6:INK·3,20:PAPER·0:BORDER·0:PEN·
     3:MODE·1:CLS
KCOO 50·MOVE·50,100:DRAW·590,100,1:DRAW·590,3
     50:DRAW·50,350:DRAW·50,100:MOVE·53,103:D
     RAW·589,103,3:DRAW·589,349:DRAW·53,349:D
     RAW·53,103:MOVE·49,99:DRAW·593,99,1:DRAW
     ·593,353:DRAW·49,353:DRAW·49,99
GBJE 60·WINDOW·5,36,5,18:LOCATE·12,12:PRINT·"
     Ready...":FOR·HH=1·TO·3000:NEXT:CLS:WIND
     OW·1,40,1,25
BCEI 70·LOCATE·10,1:PRINT·CHR$(254),"METEORIT
     E!·",CHR$(254):LOCATE·3,22:PRINT·"HIT:·"
     :LOCATE·31,22:PRINT·"MISS:·":LOCATE·15,2
     1:PRINT·"LEVEL·"LEV-7
KBOB 80·SYMBOL·255,255,153,129,195,195,129,15
     3,255:SYMBOL·254,60,122,249,255,255,255,
     126,60:SYMBOL·253,24,60,126,255,255,126,
     60,24
HAMB 90·HIT=0:MISS=0:LX=310:LY=300
BANI 100·TAG
JAFF 110·PLOT·700,700,2:MOVE·LX,LY:PRINT·"·";
DAFA 120·CALL·&BD19
EADO 130·IF·X>0·THEN·X=X-1
GAID 140·IF·Y=1·AND·X=0·THEN·Y=0
JACI 150·IF·Y=1·THEN·BORDER·0,6·ELSE·BORDER·0
HADJ 160·IF·INKEY(72)=0·THEN·LY=LY+14
HAHJ 170·IF·INKEY(73)=0·THEN·LY=LY-14
HAGJ 180·IF·INKEY(75)=0·THEN·LX=LX+14
HAIJ 190·IF·INKEY(74)=0·THEN·LX=LX-14
FAFG 200·IF·LX<55·THEN·LX=55
FAAN 210·IF·LX>572·THEN·LX=572
FALL 220·IF·LY<120·THEN·LY=120
FAEN 230·IF·LY>347·THEN·LY=347
HABH 240·IF·INKEY(76)=0·THEN·GOTO·270
HADJ 250·MOVE·LX,LY:PRINT·CHR$(255);
CANK 260·GOTO·390
HAFJ 270·MOVE·LX,LY:PRINT·CHR$(255);
GAJB 280·X=X+2:IF·X=10·THEN·Y=1
EAHD 290·IF·Y=1·THEN·250
HACI 300·MOVE·320,105:DRAW·LX+7,LY-7,2
HABI 310·MOVE·320,105:DRAW·LX+7,LY-7,0
JAPB 320·IF·LX+8<DIR·OR·LX+8>DIR+20·THEN·350
JAEC 330·IF·LY-7<LOC-20·OR·LY-7>LOC·THEN·350
DBMK 340·SHOT=0:HIT=HIT+1:MOVE·DIR,LOC:PRINT·
     "·";:TAGOFF:LOCATE·8,22:PRINT·HIT:TAG
JAJK 350·IF·LX+8<DIRB·OR·LX+8>DIRB+20·THEN·38
     0
JAOK 360·IF·LY-7<LOCB-20·OR·LY-7>LOCB·THEN·38
     0
EBFH 370·HIT=HIT+1:SHOTB=0:MOVE·DIRB,LOCB:PRI
     NT·"·";:TAGOFF:LOCATE·8,22:PRINT·HIT:TAG
CALK 380·GOTO·250
GAEH 390·IF·SHOT=1·THEN·GOTO·410
LAAC 400·DIR=INT(RND*490)+60:LOC=347:PE=INT(R
     ND*3)+1
KAPC 410·PLOT·700,700,PE:MOVE·DIR,LOC:PRINT·"
     ·";
NACD 420·SHOT=1:LOC=LOC-LEV:MOVE·DIR,LOC:PRIN
     T·CHR$(254);
ABOM 430·IF·LOC<128·THEN·MOVE·DIR,LOC:PRINT·"
     ·";:SHOT=0:MISS=MISS+1:PV=1
GAHL 440·IF·SHOTB=1·THEN·GOTO·460
ICDC 450·DIRB=INT(RND*490)+60:LOCB=347:PEB=IN
     T(RND*3)+1:IF·DIRB<DIR-15·THEN·GOTO·460:
     IF·DIRB>DIR+15·THEN·GOTO·460:IF·LOCB<LOC
     B-15·THEN·460:IF·LOCB>LOCB+15·THEN·460·E
     LSE·450
KAKP 460·PLOT·700,700,PEB:MOVE·DIRB,LOCB:PRIN
     T·"·";
OAAI 470·SHOTB=1:LOCB=LOCB-LEV:MOVE·DIRB,LOCB
     :PRINT·CHR$(253);
CBNL 480·IF·LOCB<128·THEN·MOVE·DIRB,LOCB:PRIN
     T·"·";:SHOTB=0:MISS=MISS+1:GOTO·520
GACO 490·IF·HIT+MISS>CB-1·THEN·550
GAJH 500·IF·PV=1·THEN·520·ELSE·110
CANG 510·TAGOFF
OAOA 520·TAGOFF:LOCATE·37,22:PRINT·MISS:LOCAT
     E·19,24:PV=0:TAG
BAEJ 530·TAG
CAEK 540·GOTO·110
EACH 550·WINDOW·5,36,5,18
FBHO 560·MOVE·DIR,LOC:PRINT·"·";:MOVE·DIRB,LO
     CB:PRINT·"·";:MOVE·LX,LY:PRINT·"·";:LOC=
     5:LOCB=5
CADH 570·TAGOFF
HAKK 580·IF·HIT=0·THEN·PER=0:GOTO·600
FAIM 590·PER=INT(100/(CB/HIT))
JAKA 600·LOCATE·10,2:PRINT·"YOU·HIT·"PER"·%"
GAIF 610·IF·PER<65·THEN·GOTO·660
CBLN 620·LOCATE·1,5:PRINT·"So·you·have·made·i
     t·to·the·next·level.."
IANC 630·LOCATE·12,12:PRINT·"Ready..."
KALE 640·FOR·G=1·TO·5000:NEXT:LEV=LEV+1:CB=CB
     +25
KBNK 650·CLS:WINDOW·1,40,1,25:LOCATE·15,21:PR
     INT·"LEVEL·"LEV-7:LOCATE·8,22:PRINT·"0··
     ":LOCATE·37,22:PRINT·"0··":GOTO·90
CBHJ 660·LOCATE·1,5:PRINT·"Oh·dear,·that·perc
     entage·is·too·low...."
PALA 670·LOCATE·3,10:PRINT·"Back·to·the·start
     ·it·seems."
FAGO 680·FOR·HH=1·TO·2500:NEXT
GAPF 690·WINDOW·1,40,1,25:GOTO·40
DALJ 700·PEN·1:MODE·1
KCLJ 710·CLS:PRINT·"············METEORITE!···
     ·········································
     ·················Move·the·cursor·over·the
     ·falling······meteorites·and·destroy·th
     em·with·your"
LALD 720·PRINT·"laser·by·pressing·fire."
NAID 730·LOCATE·6,20:PRINT·"Press·any·key·to·
     play"
FAEC 740·CALL·&BB18:RETURN
```



Look out or you'll fly into that meteorite.

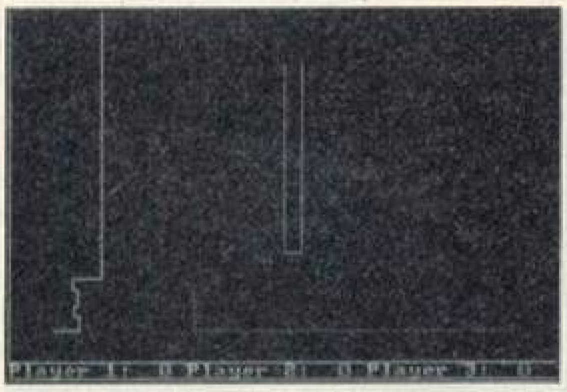
```
MAIK 1610·FOR·s=0·TO·3:POKE·sector,sectornum+
     s
FAFP 1620·buffer=&7800+512*s
ABEE 1630·POKE·waddr,buffer·MOD·256:POKE·wadd
     r+1,buffer\256
FABJ 1640·CALL·writedir
CALC 1650·NEXT
NCKM 1660·IF·PEEK(errorflag)<>0·THEN·CLS·#2:L
     OCATE·#2,34,1:PRINT·#2,CHR$(7);"WRITE·FA
     ILURE":t=TIME:WHILE·TIME-t<500:WEND:LOCA
     TE·#2,29,1:PRINT·#2,"DO·YOU·WISH·TO·RETR
     Y?·[Y/N]";:GOTO·1580
GAOO 1670·PRINT·#2,CHR$(24):RETURN
```

Snake

By Mark Goddard

I know it's an old theme, but not only is this version probably the fastest yet, it's also for three players! Invite guests round, see who can survive the longest – A complete party pack!

```
FAMB 10·'SuperSnakes
FAEO 20·'By·Mark·Goddard
BAPH 30·'1992
EABH 40·SYMBOL·AFTER·32
DALL 50·PEN·1:PAPER·0
GAEL 60·IF·PEEK(&9000)=&CD·THEN·1000
LAFE 70·MODE·2:CALL·&BC02:PRINT"Please·wait..
     ."
HADF 80·DATA·CDAC913AA191FE01CA31,0570
HADF 90·DATA·903E44CD1EBBC21C913E,0465
HAOI 100·DATA·46CD1EBBC229913E43CD,04B6
HAFJ 110·DATA·1EBBC236913E3BCD1EBB,0481
HAHI 120·DATA·C243913E09CD1EBBC03A,047D
HALG 130·DATA·A291FE01CA59903E23CD,0513
HALK 140·DATA·1EBBC2F7913E25CD1EBB,052C
HAMF 150·DATA·C204923E22CD1EBBC211,0431
HAJJ 160·DATA·923E1BCD1EBBC21E923A,043D
HAIH 170·DATA·A391FE01CA81903E0ACD,0523
HAPJ 180·DATA·1EBBC283923E14CD1EBB,04A8
HAAJ 190·DATA·C290923E0BCD1EBBC29D,0532
HAFH 200·DATA·923E03CD1EBBC2AA9201,0478
HAAF 210·DATA·00100B78B120FB3AA191,03CB
HADJ 220·DATA·FE00CCAA903AA291FE00,056F
HAJJ 230·DATA·CCD0903AA391FE00CCF6,065A
HAAG 240·DATA·903AA691FE02C20390C9,051F
HAEH 250·DATA·3AA491FE02CC5091FE00,051A
HAJH 260·DATA·CC59913AA591FE02CC62,0554
HAKH 270·DATA·91FE00CC6B91CD74913A,0563
HAPI 280·DATA·AB91FE01C8C391913A7C,059E
HAFI 290·DATA·92FE02CC2B92FE00CC34,0519
HAOI 300·DATA·923A7D92FE02CC3D92FE,0574
HAPF 310·DATA·00CC4692CD4F923A8292,04A0
HALI 320·DATA·FE01C8C36C923A0893FE,055B
HAKI 330·DATA·02CCB792FE00CCC0923A,056D
HAOJ 340·DATA·0993FE02CCC992FE00CC,058D
HAMI 350·DATA·D292CDDB923A0E93FE01,0578
HABH 360·DATA·C8C3F8923E0132A4913E,04F9
HAGC 370·DATA·0232A591C331903E0132,035F
HAPD 380·DATA·A4913E0032A591C33190,045F
HAGD 390·DATA·3E0032A4913E0132A591,034C
HAOC 400·DATA·C331903E0232A4913E01,036A
HAJC 410·DATA·32A591C331902AA79123,0471
HAOG 420·DATA·2322A791C92AA7912B2B,03FE
HACF 430·DATA·22A791C92AA991232322,03EF
HAPG 440·DATA·A991C92AA9912B2B22A9,0488
HANJ 450·DATA·91C9ED5BA7912AA991CD,060B
HAGI 460·DATA·F0BBFE00C83E0132AB91,051E
HAPE 470·DATA·32A1913AA6913C32A691,047A
HAIN 480·DATA·C93E01CDDEBB2AA991ED,05BF
HAFJ 490·DATA·5BA791CDEABBC9000000,04CE
GAGN 500·DATA·02010032003200003E00,00A5
HAOB 510·DATA·327D9232089332A19132,03A4
HADC 520·DATA·A29132A3913E0132A591,0440
HAPB 530·DATA·327C923209933E0232A4,0324
```



It doesn't look like much, but it's an absolute hoot. Your friends will never leave.

```
HAMB 540·DATA·9121320022A79122A991,039A
HALB 550·DATA·220C93215401227E9222,028B
HAFB 560·DATA·8092214E02220A933E00,0280
HAHD 570·DATA·32AB91328292320E9332,03B9
HAIG 580·DATA·A691C93E01327C923E02,03BF
HAMF 590·DATA·327D92C359903E01327C,03DA
HAKF 600·DATA·923E00327D92C359903E,03FB
HAPC 610·DATA·00327C923E01327D92C3,0383
HAOD 620·DATA·59903E02327C923E0132,02DA
HAPE 630·DATA·7D92C359902A7E922323,043B
HAFH 640·DATA·227E92C92A7E922B2B22,03AD
HAME 650·DATA·7E92C92A809223232280,03FD
HAFD 660·DATA·92C92A80922B2B228092,0421
HABK 670·DATA·C9ED5B7E922A8092CDF0,061A
HAFF 680·DATA·BBFE00C83E0132829232,0438
HAHF 690·DATA·A2913AA6913C32A691C9,0512
HAJK 700·DATA·3E02CDDEBB2A8092ED5B,052A
HADH 710·DATA·7E92CDEABBC901005401,04A1
HAIA 720·DATA·5401003E013208933E02,01A1
HAOB 730·DATA·320993C381903E013208,031B
HAFD 740·DATA·933E00320993C381903E,03B1
HADC 750·DATA·003208933E01320993C3,029D
HAGC 760·DATA·81903E023208933E0132,028F
HAJD 770·DATA·0993C381902A0A932323,037D
HAKF 780·DATA·220A93C92A0A932B2B22,02C7
HAIE 790·DATA·0A93C92A0C932323220C,02A3
HAMF 800·DATA·93C92A0C932B2B220C93,033C
HADJ 810·DATA·C9ED5B0A932A0C93CDF0,0534
HAJG 820·DATA·BBFE00C83E01320E9332,03C5
HAFF 830·DATA·A3913AA6913C32A691C9,0513
HABM 840·DATA·3E03CDDEBB2A0C93ED5B,04B8
HAIH 850·DATA·0A93CDEABBC900014E02,0429
HAEF 860·lin=80:addr=&9000:l=&30A
CADI 870·tot=0
DADD 880·READ·a$,b$
HACE 890·FOR·i=0·TO·LEN(a$)-1·STEP·2
GAEE 900·b=VAL("&"+MID$(a$,i+1,2))
EACD 910·POKE·addr,b
EADD 920·tot=tot+b
EALI 930·addr=addr+1
CAAD 940·l=l-1
CAGI 950·NEXT·i
ICFJ 960·IF·tot<>VAL("&"+b$)·THEN·POKE·&9000,
     0:PRINT"Error·in·line";lin:KEY·139,CHR$(
     13)+"EDIT"+STR$(lin)+CHR$(13):PRINT"Pres
     s·the·small·enter·key.":END
EAIH 970·IF·l<1·THEN·1000
EAAB 980·lin=lin+10
CAKL 990·GOTO·870
CAHF 1000·MODE·1
DAAF 1010·GOSUB·1490
BAFM 1020·CLS
KAJI 1030·BORDER·0:INK·0,0:INK·1,18:INK·2,11:
     INK·3,6
EACN 1040·SYMBOL·AFTER·32
IAMH 1050·t$="**·SuperSnakes·**":y=1
DAPE 1060·GOSUB·1700
KABB 1070·t$="by·M.·Goddard":y=3:GOSUB·1700
CAOB 1080·PEN·2
DAIF 1090·LOCATE·1,9
DACP 1100·PRINT"···UP:"
EAGE 1110·PRINT"·DOWN:"
EAKD 1120·PRINT"·LEFT:"
EAOG 1130·PRINT"RIGHT:"
CAKB 1140·PEN·1
DACI 1150·LOCATE·10,6
FAHH 1160·PRINT"Player·1"
DAFI 1170·LOCATE·20,6
FAKH 1180·PRINT"Player·2"
DAII 1190·LOCATE·30,6
FAEH 1200·PRINT"Player·3"
CAKB 1210·PEN·3
GAFG 1220·LOCATE·10,9:PRINT"TAB"
GAON 1230·LOCATE·10,10:PRINT"CAPS"
GAKA 1240·LOCATE·10,11:PRINT"Q"
GACB 1250·LOCATE·10,12:PRINT"W"
FAMN 1260·LOCATE·20,9:PRINT"I"
GAHA 1270·LOCATE·20,10:PRINT"K"
GANA 1280·LOCATE·20,11:PRINT"O"
GAAB 1290·LOCATE·20,12:PRINT"P"
FAGM 1300·LOCATE·30,9:PRINT"7"
FAMO 1310·LOCATE·30,10:PRINT"4"
FACP 1320·LOCATE·30,11:PRINT"8"
FAFP 1330·LOCATE·30,12:PRINT"9"
CAMB 1340·PEN·1
DBAM 1350·LOCATE·1,15:PRINT"Player·3·keys·are
     ·on·the·numeric·keypad."
ABMH 1360·t$="S·changes·speed,(SPACE)·starts.
     ":y=18:GOSUB·1700
MABI 1370·a$=UPPER$(INKEY$):IF·a$<>"S"·AND·a$
     <>"·"·THEN·1370
EAMP 1380·IF·a$="·"·THEN·1470
PACA 1390·t$="What·speed·(1-4000).1=VERY·fast
     ":y=20:GOSUB·1700
KABM 1400·WINDOW#1,1,40,22,22:PEN#1,1:PAPER#1
     ,3:CLS#1
DAJN 1410·INPUT#1,"",s
HABA 1420·IF·s<1·OR·s>4000·THEN·1410
FAFN 1430·a$=LEFT$(HEX$(s,4),2)
GAKC 1440·b$=RIGHT$(HEX$(s,4),2)
FANK 1450·POKE·&9083,VAL("&"+a$)
FAOK 1460·POKE·&9082,VAL("&"+b$)
BAOM 1470·CLS
PAOM 1480·t$="Are·you·ready?":y=1:GOSUB·1700:
     GOSUB·1500:GOTO·1530
CBAA 1490·t$="Player·1:····Player·2:····Playe
     r·3:":y=25:c=1:GOSUB·1700:c=0
MABP 1500·WINDOW·1,40,1,25:LOCATE·10,25:PRINT
     ·USING"###";sc1
JAEB 1510·LOCATE·23,25:PRINT·USING"###";sc2
PABF 1520·LOCATE·36,25:PRINT·USING"###";sc3;:
     WINDOW·1,40,1,24:RETURN
FAPI 1530·FOR·a=3·TO·1·STEP-1
EAEO 1540·t$=STR$(a):y=15
DADF 1550·GOSUB·1700
FAPL 1560·FOR·p=1·TO·200:NEXT
BAPM 1570·CLS
CAOK 1580·NEXT·a
CBDP 1590·WINDOW·1,40,1,24:CLS:MOVE·0,17:DRAW
     ·639,17,1:DRAW·639,399:DRAW·0,399:DRAW·0
     ,17
DACB 1600·CALL·&9000
LAFA 1610·IF·PEEK(&91AB)=0·THEN·sc1=sc1+2:w=1
     :b=18
KAKO 1620·IF·PEEK(&9282)=0·THEN·sc2=sc2+2:w=2
     :b=11
KAOM 1630·IF·PEEK(&930E)=0·THEN·sc3=sc3+2:w=3
     :b=6
DALC 1640·BORDER·b
DACF 1650·GOSUB·1500
PALG 1660·t$="The·winner·is·Player"+STR$(w):y
     =15:GOSUB·1700
GABF 1670·WHILE·INKEY$<>"":WEND
GAFB 1680·WHILE·INKEY$="":WEND
GAHH 1690·BORDER·0:CLS:GOTO·1360
LAOL 1700·IF·c=0·THEN·x=ROUND((40-LEN(t$))/2)
     ·ELSE·x=1
FAPM 1710·PRINT·CHR$(22)CHR$(1)
FADH 1720·FOR·i=1·TO·LEN(t$)
GAHC 1730·l=ASC(MID$(t$,i,1))-32
FAJI 1740·addr=HIMEM+l*8+1
BBJI 1750·SYMBOL·254,PEEK(addr),PEEK(addr+1),
     PEEK(addr+2),PEEK(addr+3)
DBGG 1760·SYMBOL·255,0,0,0,0,PEEK(addr+4),PEE
     K(addr+5),PEEK(addr+6),PEEK(addr+7)
CADC 1770·PEN·1
DAFO 1780·LOCATE·x,y
EAGM 1790·PRINT·CHR$(254);
CAOB 1800·PEN·2
DAPN 1810·LOCATE·x,y
EABM 1820·PRINT·CHR$(255);
CAFH 1830·x=x+1
CAFL 1840·NEXT·i
FADN 1850·PRINT·CHR$(22)CHR$(0)
CAPM 1860·RETURN
```

And that, as they say, is that. There'll be more next month, so get typing or you'll never be finished in time for the next lot. ●

A Brief Word In Your Ear...

Please send your type-ins to:
Type Ins
Amstrad Action
30 Monmouth Street
Bath
BA1 2BW

To increase your chances of seeing your own work in our pages, you'd do as well to bear the following points in mind:

1 Make sure it's your own work. Our knowledge of published CPC software isn't exactly encyclopedic, so we don't often spot things as being ripped from a magazine or PD library. If we do recognize them we just wipe the disc and use it for our own stuff. And in the end you just make yourself look a twit because if we don't spot it then someone else certainly will. And then everyone gets cross with you.

2 Make sure the program works. We get mountains of type-ins every month and we don't have time to debug them. If the program doesn't work the first time we try it, we wipe the disc and use it for something else. It's your money you're wasting.

3 Keep them short. People moan enough about having to type the things in (now that we don't put them on the covertape any more. We reckon about 200 lines is the upper limit, really. If you have anything longer than that, we might consider it, but we can't promise to use it unless it's something people just aren't going to be able to live without.

4 Keep them original. Over the last 90-odd issues we've lost count of the number of *Pacman* clones and Biorhythm Generators we've had to look at. Yours might be the best programmed version of some tired old classic but very few people will be impressed if, in the end, it's just a tired old classic.

5 Finally, please send them in on tape or disc – a printout just doesn't cut the mustard, sadly.

AA SMALL ADS

For Sale

CPC 6128+ excellent condition, cartridges, games, serious software (on disk), DMP 2000, portable computer desk, old AA's, programming books. Everything must be sold. Quick sale, price suggestions welcome. **Tel 0865 863177** ask for Brian.

DMP 2000 with 8k buffer, lead and instruction book £65. MP3 tuner turn your CPC6128 monitor into a TV, for CTM644 only £18. Phone Dennis after 7pm or anytime weekends on **0924 377836**.

MONITOR colour CTM 644 plus pack of games on disk and tape £130 ono. tel **0474 534670** after 5pm.

GAMES for sale! Tapes and disks, including: Protext, Turtles, Gremlins 2, Lotus Esprit, Kick off Collection. Send SAE for list to **Daniel Holbrook, 161 Poulton Royd Drive, Spital, Wirral, L63 9YP.**

AMSTRAD ACTION MAGAZINES issues 28 to latest £50 ono. ACU January 1988 to latest £20 ono, also 20+ issues Computing with the CPC offers. **Tel 0536 518780.**

MP2 MODULATOR as new. No scart socket, use your CPC6128 on your TV, only £28. Phone Dennis on **0924 377836** after 7pm or anytime weekends.

MULTIFACE 2+ £20. Cheat mode II + tapes £7. AA's 17-88 + all tapes. 250+ tape games. Some disk games and many compilations, all originals. Phone Paul after 4.30pm weekdays or weekends on **0765 603157.**

MULTIFACE 2+ for Amstrad 464 Plus used once fully boxed £25, also some games for sale £1-£5. **Tel 0742 393511** after 6pm, ask for Darren.

CPC6128 COLOUR MONITOR, Stop Press, Mouse, Joysticks, Info script, Art Studio, Multiface 2, Tape Leads, Magazines, Tape and Disc Games, Educational Software. Worth £700+. Only £299. **Phone 0582 606339.**

CPC 6128+ excellent condition, cartridges games (on disk), serious software (on disk), portable computer desk, old AA's, programming books. EVERYTHING MUST BE SOLD! Quick sale , price suggestions welcome. **Tel 0865 863177** ask for Brian.

AMSTRAD CPC464 colour monitor DD1 disk drive, 2 joysticks, over 80 games, 60 AA magazines. Spare disks, excellent condition, all boxed with manuals £250. Phone **0480 812267** ask for Paul.

DD-1 DISK DRIVE £85, also teh disks (blank) £10, Mini Office II disk £8, Qualitas Plus Version 2 disk £10, Cyrus II 3D Chess disk £10. **Phone Philip 0827 874298.**

GAMES for sale, all on tape, prices range from 15p to £3.50! For list send a SAE to **Paul Stevens, 9 Chiltern Close, North Langney, Eastbourne, East Sussex BN23 8HD.**

AMSTRAD CPC 6128 mono monitor and modulator, plus hundreds of games, multiface 2, data recorder, mouse, joysticks and more. £400 ono VGC contact **35, Manor Road, Alton, Hants GU34 2PB.**

AMSTRAD DMP-1 printer with ribbon and leads, very reasonable price £35, oh and it comes with manual! Anthony **0277 822037.**

EMLYN HUGHES, Kick Off 1+2, & World Cup Kick Off and International 3D Tennis, all on cassette. Will sell for £10 or Gazza II on cassette. **Tel 0851 82-524**

AMSTRAD 464 cassette, games for sale (including Turrican 2, Prince of Persia, Shadow Warriors and loads more) all originals. Full pricers £5, budgets 50p, phone for list, Ryan **041 334 9940** hurry!

AMSTRAD CPC 6128 colour monitor. As new. Good condition. Tape recorder, Amsoft joystick JY2, over £150 worth of games including Pirates, OCP Advanced Art Studio, Star Control etc. AA & ACU magazines £150 ono. **Phone 0247 460317.**

AMSTRAD 464 PLUS with colour monitor multiface II, Joystick, AA from 52-85, 20 cover cassettes and £100 worth of software, 2 Game cartridges which include World of Sport. All vgc £300. **Tel 0344 483173.**

SOFTWARE: Protext, Prospell, Locksmith, BCPL (disk/ROM), Speedtrans Plus, Utilities Disk No 1 (Samson, Transit, Qclone, Viewtext), all no disk. **ROMS:** Rodos 2.19, Utilities ROM, Rombo ROM board with 2 sideways RAMS. **HARDWARE:** DK'tronics light pen. Books: 100 programs for the Amstrad, Amstrad Graphics, Mastering Machine. **MAG:** Amstrad Action 2-79 (only 5 missing) (all in binders), Computing with the Amstrad 1-24 (all in binders) offers on Redcar **0642 474599,** ask for Andrew.

AMSTRAD GAMES all originals on tape only £1. Each buyer pays postage, add 20p per tape for postage. List is available. **Ring 0222 795161** after 6pm only please.

MAGAZINES for sale, 70 AA from Jan/86 with all cover tapes, 26 ACU May/87 - June/89, 24 Computing with CPC Jan/87 - Dec/88 offers please to **0733 238776.**

ISSUES 35-85 of Amstrad Action £1.75 each, includes p+p or £60 for the lot. Send cheque or postal order to **William Huddleston, 1 Millwell Park Innerleithen EH44 6JF**

AMSTRAD CPC 464 with green screen monitor, users handbook, TV modulator, over 200 games £120. **Phone 0902 730106**

ASSORTED TAPE GAMES including Double Dragon and Trivial Pursuits, 15 in all, £12 the lot. **Phone Sawtell 0277 225367.**

DISK MINI OFFICE II £6, taped games 75p, all original with instructions, price includes p+p. **C Russell, 57 Brookside Close, South Harrow, Middx HA2 9AW.**

DD-1 DISK DRIVE for CPC 464 with 70 games including Robocop, Trivial Pursuits, Batman and 3D Construction Kit, £100 ono **Tel 0253 58102.**

GENERAL X (Strategy) promote ten units from private to general, by theft if necessary, before your opponent/ Computer does the same (Homebrew). £2 + tape/disk. **A Swinbourne, 11 Vicarage View, Redditch, Worcs. B97 4RF.**

CPC SOFTWARE, books, mags for sale, send SAE for list, many old/new games from just 40p. **Tel 081 806 5723.**

AMSTRAD NC100 notepad computer as new, still boxed, 9 months guarantee remaining £170 ono. Lee Ashbourne 139, Vicarage Road, Wednesfield, Wolverhampton WV11 1SF or **telephone 0902 733839 after 5pm.**

CPC 6128 colour monitor, multiface II, insider protext, prospell, games, joysticks, GAC, Amstrad Action back issuues 32-47, sell for £200 ono. **Tel 0206 796707.**

6128 colour monitor, amstrad desk TV modulator, clock/radio, star LC10 printer, separate tape deck, multiface 2+, joystick, manuals, boxed, 60+ AA's, 250+ games inc. 45+ master games, complete package, £549. **Tel 0487 832451.**

CPC464, disk drive, multiface, insider, 50+ games, magazines, books, protext, firmware guide, colour monitor. Hisses slightly otherwise superb condition. £160 only for quick sale. Buyer collects. **Phone Mark 0734 817252.**

"FLEET STREET EDITOR" £10; "Planit" personal organiser, loan calculator, calendar, money manager £10; "Protext" word processor £10, all on disk; "Advanced Art Studio" with mouse. **Phone John 0793 845157.**

AMSTRAD FD-1 disk drive, multiface II, 64k RAM, original games, 8 disks, 42 tapes, including Elite. AMX Desktop Publishing, 25 cover tapes. £250 or offer. **Tel 0353 777373 Rathmore Sutton, Ely, Cambs. CB6 2RL.**

SHADOW DANCER, Rodland, Midnight Resistance, Double Dragon 3, Turtles with only 1 half of Password sheet, Night Breed, Double Dragon 2 and Robocop, all disks at £3 each. **Tel 0222 709289.**

AMSTRAD 464 colour monitor, 35 games on tape mini office etc. Few AA magazines with cover tapes. Manual £125 ono. **Tel anytime 0761 432219.**

AMSTRAD CPC 6128 colour monitor MP3 modulator (converts to colour TV) tape deck, mirage imager, joysticks, serious and games software. Selection Amstrad Actions. £200 ono multiface II £25. **Phone 0952 200337.**

AMSTRAD CPC 464 Plus monochrome monitor, 5 games, brand new, boxed, unwanted gift £150 **Tel 081 206 1397 (Brentcross M1).**

CPC 464 colour monitor, disk drive, 64k expansion, stereo speech synthesizer, multiface II, joystick, 250+ games, magazines. Worth £2,500, sell for £450 ono. **Phone Lee on 081 841 4563 (evenings).**

AMSTRAD 464 plus colour - 90+ games, including 5 compilations, 20+ AA Magazines (with tapes), manuals and guarantee. Worth £360. Will sell for £220. Contact John Silk, **Tel 0734 869345.**

AMSTRAD CPC 6128+ Brand New stereo monitor, user manual etc £135, 1 Sinclair QL64DK wordprocessor, spreadsheet, database, graphics, D.disk drive, greenscreen monitor 20 disks £135 or swap Sinclair + extras manual etc. For CPC+ compatible printer and disks, pref business. **Tel 0952 200680.**

GT65 Green screen monitor for sale vgc £30 or swap for DKTronics 64k expansion. **Phone Steve on 0302 700424.**

SALE OR SWAP over 50 games. **Phone 081 948 7170** ask for Rob.

AMSTRAD 464 PLUS, 90 games including 5 compilations, 20 covertapes and magazines, guarantee and manual, worth £350, sale for £240. Contact John Silk **Tel 0734 869345.**

AMSTRAD CPC 6128 with cassette recorder, colour monitor, joystick and many, many games. All in perfect working order. Cost £600+. Sell for £225. **Call 0452 722035.**

OCP ADVANCED ART STUDIO (disk) for CPC 128k, only £15, brand new with instructions. Phone **0452 831430** from 3.45pm Mon-Fri and ask for Matthew.

COLOUR MONITOR FOR CPC inc. TV adaptor for sale £60. Buyer collects. **Tel 0258 452069.**

CPC464 COLOUR MONITOR and £250+ worth of games. Also 30+ magazines and 20 covertapes. Sell £175. **Phone 0924 240565 after 4.30pm.**

SELECTION OF HOMEBREW SOFTWARE for the CPC's, 7 titles, prices from £1.50 to £3 plus tape/disk. For a free information sheet send SAE to **A Swinbourne, 11 Vicarage View, Redditch Worcs. B97 4RF**

AMSTRAD CPC464 green monitor, 10 tapes, manual all boxed and in good condition £85. New Romney area. **Tel 0679 66871.** Reason for selling now have Amstrad 6128.

AMSTRAD CPC 664 + modulator disk drive needs attention, hence £40 ono. Also RS232 serial interface £25, multiface £25 ono and various other hardware. Please ring for info. Will exchange for colour monitor for 6128, will consider 464 monitor. Cash either way on P/X. **Tel 0271 73549.**

SAVE £400 on Amstrad colour 464+ complete with 3" drive, 128k memory, rombox, multiface 2, £250 of games/utilities. All in excellent condition. £550 ono. **Phone David 0252 377974 after 6.30pm.**

AMSTRAD CPC464 cassette games large selection including T2, Total Recall, Starwars, Paperboy, Outrun, Batman from £2. **Tel 0582 581259.**

AMSTRAD DD1-1 first disk drive for CPC 464, plus games on disk £90 ono. Phone Jonathan **071 226 8671.**

CASSETTE GAMES for sale. All boxed originals. Full price £5, £4 and £3, budget 50p, lots of recent titles, incredible savings! Write for list. Hurry! Call Ryan **041 334 9940** (after 4.30pm) or write to **20 Chesterfield Ave, Gt. Western Road, Kelvindale, Glasgow, G12 0BL.**

AMSTRAD CPC 6128, colour monitor, loadsa games including Gunship, Golden Axe etc, Mini Office II, all system disks, joystick and manuals. Worth £700, sell for £260 ono. Phone Paul **051 427 2866** after 6pm (local delivery).

AMSTRAD CPC 464 with monitor colour modulator, joystick, 70 games, worth £458, accept £130 ono. **Tel 0723 366449.**

AMSTRAD CPC464, green monitor, modulator, manuals, Mini Office II, over 50 games. £80 ono. **Ring Shaun 0327 359825 anytime.**

CPC 464, green monitor, tape drive, two joysticks, manuals 60+ games, DMP 2000 printer (mono) all boxed, good condition £160 ono **Tel 0698 422087.**

464 WITH GREEN MONITOR, MPI modulator, DDI drive, Multiface, Entrepreneur Masterfile and Mini Office software, 60 games, magazines and cassettes. £175. Repairable 464 and modulator offers. **Phone Andy 0243 543292.**

CPC 6128 KEYBOARD, 180 magazines, including AA, ACU, CWA, Laser Basic, Soft 968, manuals, disks, many cassette games, books, will sell or swap for any amiga products. **Contact Frank 0274 612205.**

AMSTRAD 464 with colour monitor, mono Brother printer, Datel Electronics, lightpen, manual, two joysticks, over 40 AA's, over 280 games, including all Dizzy's. £300 ono. Phone Ben on Ruthin, (Clwyd) **704508.**

GAMES for sale, all originals. Sports Sims, Platform, Shootups, very cheap examples 30 mega games, Tank Attack, Robocop, Platoon, Man UTD, Rugby, Line of Fire. **Ring 0482 215129.**

Wanted

PENPAL wanted - 6128 owner for swaps, games, cheats etc. Aged about 12. Please write to **Adam Gilbert, 10 Granville Street, Helensburgh, Dunbartonshire G84 7LL.**

WANTED! North and South, Titus The Fox and Navy Seals. Will swap 1 for any two of the following: Switchblade, Lemmings, Protext, F-16 Combat Pilot, Golden Axe + many more. Call after 4pm **0932 857496.**

ANYONE know where I can buy new cassette player (must have REM socket) for use with CPC 6128? **Tel 0202 296031.**

WANTED! Pirates, Elite, Doomdarks Revenge. Will swop for Bards Tale, Shadow Dancer, Shadow of the Beast, Total Recall. Contact **Rory McBride, 8 Penns Lake Road, Walmley, Sutton C'Field, W.Mids B76 8LN.**

WANTED DESPERATELY Rex on tape or disk. Will swap 3 tapes like Hammerfist, or one disk like Championship Baseball or will pay. **Phone 0705 483525 for details.**

LORDS OF CHAOS instructions urgently! Photocopies accepted. **Jim Speers, 1F Downpatrick Green, Monkstown, Newton Abbey, Co. Antrim, N.Ireland BT37 0JG.**

TASPRINT and has anyone out there got a dictionary in ASCII format? I will pay! **Andrew Smith, 7 Woodbine Crescent, Cale Green, Stockport, Cheshire SK2 6NT.**

HAS ANYBODY out there got a 3.5" second disk drive with leads, software and manuals for sale? Urgently needed. Will pay any reasonable price. Phone James on **0734 733637.**

GX4000 - 8 year old boy wants cheap games to play on this. **Tel 0493 369365.**

CHEAT MODE II & disk games especially Hitchikers Guide, Battle Command. Swap or buy, for my list send SAE to **R Russell, 28 Herdsdown, Hoo Saint Werburgh, Nr Rochester, Kent ME3 9HN.**

DATEL MUSIC MACHINE on disk for CPC 6128. Must be complete with instructions. **Tel Alan 081 686 3504 any time.**

PD SOFTWARE WANTED on disk 3" or 3.5" for new PD library. All disks returned promptly. **Martin Scanlon, 5 Mary Street, Glin, Co. Limerick, Eire.**

LASER SQUAD on disk or tape. Will swap four tapes like Smash TV, Turtles 2 or two disks like Ninja, Spirit, Dynamite DWC or I will pay. **Phone 0705 483525.**

MONEY MANAGER will exchange either Hisoft Pascal 80 or Masterfile III. Ring Alex **0253 53024.**

TURTLES THE COIN OP for amstrad. Please ring **091 2681293** stating price.

PROGRAMS for inclusion in Public Domain Library. Must be your own work. £5 for best program each week. **GDPD Software (IoW), 18 Sutton Close Elmfield, Ryde, Isle of Wight PO33 1DH.**

WANTED WHO DARES WINS II, Ping Pong, Yie Ar Kung Fu, Minder, Way of Exploding Fist, compilations containing these. Phone Darryl **0342 823618.**

DELUX STRIP POKER or other such games on disk. Will swop for Mini Office II, GLoc or Strider. All on disk, must collect. Tel James **0203 341562**, Mon-Fri 6-9pm.

WANTED URGENTLY, Back to the Future, Predator 2, Indiana Jones. Will swap for loads of games. Contact David **0204 861324.**

WANTED for CPC 6128, a TV modulator & a colour monitor. Also educational software on disk. Phone **0404 813085.**

BIG SLEAZE OR CORRUPTION will pay reasonable price or swop for Spitting Image or Narco Police and lots more. The game must be on tape for Amstrad 464 Plus. **Tel 0491 34867.**

DD1-1 FIRST DRIVE for CPC 464 with system disk. Phone **0624 842343** and ask for Anthony.

I AM A CPC464 OWNER and want to learn machine code, can anyone help? please phone Mike **0482 878999** after 6pm Tuesday-Friday.

AMSTRAD 6128 with mono monitor. No extras required. Tel Allan **098 982 472.**

PACKMAN & SPACE INVADERS on cassette. Also any books on programs for the 464+. Any hardware considered call Ian on **0209 218080** evenings only.

DESPERATELY WANTED machine code colour and mono printer dumps for non standard printer. I'll send control codes. Also wanted Snowball and Return to Eden. Will buy. Call Daniel **0277 225043** evenings.

DISK GAMES will swap for games from massive collection. Also wanted 3.5" disk drive, will swop for up to 10 disk games. Tel Ben on **0440 706231.**

BARBARIAN, will swap Skull N Crossbones or Super hang On. Will pay cash up to £5. Write to me please, I'm desperate. Philip Healy, Ahalana, Moyvane, Co.Kerry, Ireland. **Tel 068 49114.**

UPGRADES

6128 PLUS – TAPE UPGRADE

You've been waiting patiently for ages, and now it's here. In the final part of our upgrades series, Phil Craven shows you how to fit a tape connector to your 6128 Plus.

For some peculiar reason Amstrad, in their not so infinite wisdom, contrived to produce the excellent 6128 Plus computer complete with everything needed to access a tape recorder - except a connector. Well, almost everything. The software is inside the system cartridge. You can see it by typing ITAPE[ret] followed by CAT[ret] or RUN""[ret]. The tracks and holes for the tape components are already on the circuit board and all that's missing is a transistor, a resistor, and, of course, that connector. The additional cost of including them would have been so tiny and their function so useful that no one can fathom why they were left out. But that's Amstrad, I guess.

Anyway, we can put it right by adding the tape facility for a mere £10 which is a massive saving of more than £25 over one available tape upgrade and £8 over Avatar's diy kit. Installing it is incredibly easy and results in a neat 5 pin DIN tape socket mounted in the back of the computer. The ability of the computer to start and stop the tape recorder is included – that's the infamous 'remote' facility that some tape upgrades won't do. The only items that aren't included in the £10 are a tape recorder and a lead to connect it to the DIN socket.

Cheap and nasty tape recorders, with the volume turned up high, are best for computer use. Data recorders are useless for music and voice but are ideal for computers.

Once again Avatar, 39 Crossfell Road, Leverstock Green, Hemel Hempstead, Herts, HP3 8RG are this month's suppliers for the full kit of parts which includes everything needed to do the upgrade except a tape recorder and cable. Why the big price difference between the kit for this project and Avatar's normal kit? Simply that their normal kit isn't really a kit at all but is supplied as an assembly with most of the work already done.

Are you sitting comfortably?

When handling the circuit board try to avoid touching any of the circuitry. In the old days some types of chips could be zapped by the body's static electricity and, although this is less likely now, it's better to err on the side of caution so, before opening up the computer, hold the cold water tap for a second or so to discharge any static.

Open the box one more time...

Disconnect the computer from the monitor and remove the cartridge. Turn it over and take out the six screws from the underside. While it is upside down, notice the three catches that hold the case top to the case bottom. Turn the computer the right way up again and undo those catches by pulling them outwards.

Undo the wires

Lift the top up and back and disconnect the two pairs of wires that join the case top to the circuit board. Take note of their colour codes so that, when finished, you re-connect the correct pair of wires to the correct circuit board connector. Slip the keyboard's slide-in film connectors out of their sockets and remove the keyboard. Disconnect the 4 way power socket and 26 way signal cable from the disc drive - not from the circuit board. Take out the three screws that hold the circuit board to the base and lift the circuit board out altogether.



Look and learn

Fig.1 shows the positions of where resistor R4, transistor Q01 and connector CP07 would have been if Amstrad had fitted them. They are clearly marked on the circuit board but their holes are filled with solder. It's your job to clear the holes and fit the parts.

Suck 'em and see

A solder sucker costs about £3 -£4 from Tandys or Maplins but it seems a shame to buy one just for 13 holes so, if you haven't already got one, or if you can't borrow one, you could try working the parts into the holes by using a soldering iron to melt the solder in each hole, one at a time, and easing the parts in bit by bit.

The resistor and transistor shouldn't be too difficult but the 8 pin header strip (set of pins) might be not be so easy. Only five of the pins are actually needed so pulling the other three out with a pair of pliers will help. Failing that, a solder sucker is the thing to get.

Soldering on

Solder the resistor, R4, transistor, Q01 and the 8 pin header strip into place. The resistor can be fitted any way round as can the header strip but the transistor's flat side must be positioned to match the white, flat sided, transistor shape printed on the circuit board. When those three parts are fitted, the circuit board can be screwed back onto the case bottom, the disc drive connectors re-connected, the keyboard put back and its film connectors re-connected. The copper leaf springs should rest on the underside of the keyboard. If they've been bent down, bend them back up again.

The cable assembly

This comprises a 5 pin DIN socket, a relay with diode for the remote facility, a foot or so of 5 way multicoloured ribbon cable leading into an 8 way terminal housing to push onto the 8 way header strip now fitted.

It can be made with the relay and diode in any position along the cable but Avatar's arrangement is ideal and keeps any metal parts from touching anything where short circuits might occur so that's the arrangement we'll use. The more I say, the more it seems there's no end to my pinching of other people's ideas so, before the complaints start, I'd better own up. Most of the CPC's hardware add-ons, including the upgrade kits, are owned and made by me and I'm simply sharing with you what's already mine.

Sounds very tinny

With a Stanley knife or similar, cut between and separate each strand of the ribbon cable to about 1.5" to 2" at both ends. Strip away about 0.25" of insulation and tin each of the 10 ends. Tinning is melting solder over the bare wire by holding the wire onto the soldering iron tip and putting solder onto it. It coats the wire with solder to make more reliable soldered joints but it isn't necessary for components like those you've already fitted.

I'm afraid it's terminal

Solder a terminal onto each of the five strands at one end of the cable by melting solder into the solder end of each terminal and then melting it again whilst a tinned strand is held in it. You'll need a spare hand to hold each terminal for that job so how about making some imaginative use of a bit of sticky tape? Stick the terminals' non-solder ends to the tape to prevent them from moving. The terminals will later push into the white terminal housing but not yet.

Relay racing

Prepare the relay (silver cube thing) by cutting off the unwanted pins and shortening the two pins where the diode is to be soldered down to about 0.25". The relay has a small tongue along one side which must be used to identify which pins to cut off, which to shorten and which to keep anyway. Fig.2 shows exactly which pins to cut.

You should be left with two long pins and two short ones (one of them next to the tongue and the other opposite it). Bend the diode's two wires at right angles to the diode's body and cut them back to about 0.25".

A small vice would help with this next bit. With the relay held securely, pins pointing up, solder the diodes wires to the relay's two shorter pins making sure that the diode's wires don't end up touching the relay's surface. The diode gets hot during this and is best held with pliers. For neatness, you can bend the wires in and the pins out so that they are parallel to each other. You can also bend the two long pins out of the way.

It is very important that the diode is soldered the right way round. It has a white ring at one end which must be soldered to the pin that is opposite the relay's tongue and not the pin that is next to the tongue. Fig.2 shows how it should be fitted.

The relay can now be connected to the DIN socket by its long pins. Run some solder over the DIN socket's five main tags. Cut about 0.25" off each of the relay's two long pins, splay them outwards and solder them to the DIN socket's tags as shown in fig.4. It doesn't matter which pin goes to which of the two tags as long as one pin goes to each of the two tags shown. Personally, I do it so that the diode, which now faces the DIN socket, sits neatly inside the semi-circle of tags but then I fill the gaps with hot glue to ensure that the pins don't touch any tags. You might find it better to position the diode outside the semi-circle of tags. Wether inside or outside the tags, you should note that a hole, the size of the DIN socket's barrel has to be drilled in the case top and the whole assembly pushed through it so keep the overall circumference inside the barrel size. The gap between the DIN socket's black base and the relay's base should be about 0.5" to keep it from touching the disc drive when fitted.

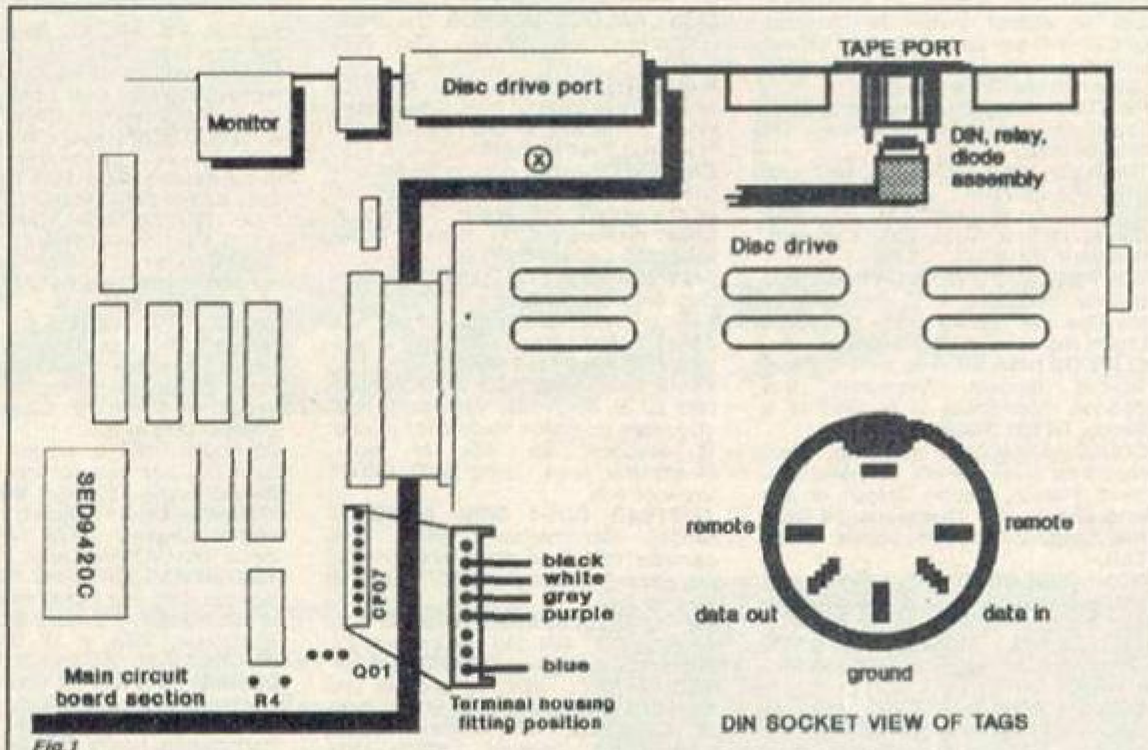


Fig.1

Are we nearly there?

We're nearly there. Just the cable to solder up. Solder the cable's coloured strands, the ends without the terminals, to the relay/diode and DIN tags as shown in fig.2. It isn't important which colour strand is soldered to which tag or end of diode as long as the terminals are inserted into the correct positions in the white housing. To be safe, though, stick to the colours as shown.

All together now

Three holes for the DIN socket's barrel and two bolts need to be drilled into the computer's case top. Fig.1 shows a good place to do it. Push the cable assembly through the large hole and bolt the DIN socket into place. Now the terminals can be pushed into the housing. See fig.1 for the correct positions with respect to the housing's two small feet. Each terminal has a small leaf spring on one side and the housing has a set of small windows. Push the terminals in so that the leaf springs pop into the windows. If you manage to put a terminal into the wrong place, push down inside the window with a screwdriver, to release the spring catch, and pull it out.

You can now re-connect the two pairs of wires from the case top to the circuit board, push the new tape connector onto CP07, making sure that the small feet are positioned according to fig.6 and completely put the computer back together.

Using tape

Note that fig.1 shows the signals that are connected to the DIN socket as seen from the tag side and not from the more usual holes side. A suitable cable for your particular recorder can be obtained from that information.

You computer will still power up with the disc drive as default. |TAPE changes the default to tape until you type |DISC or reset the computer. | is obtained by typing SHIFT and @ simultaneously. Having typed |TAPE, any program you wish to run will be met with the on-screen message, Press play and any key... Pressing play on the tape recorder should not start the tape turning because the computer is in control of its motor. After pressing any key the computer starts the tape's motor and stops it again when the program has loaded.

The main purpose for having a tape facility on a disc drive computer is to save money by buying tape software and transferring it to disc. The problem with most such software, particularly games, is that they are protected against copying and a tape to disc transfer utility is usually needed. Both software and hardware types are available from advertisers in this issue but it is beyond the scope of this project to discuss them further. ●

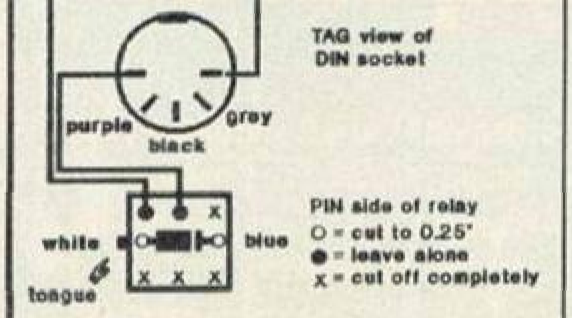


Fig.2

Problems

As with the previous projects in this series, where we have shown you how to modify the computer itself, there is day and evening technical help available on 0274 602180.

If the upgrade is done according to the instructions in this article, then it will work. However, we have no control over what a person might do inside his/her computer so neither Future Publishing Ltd, nor the author of this article can accept any responsibility or liability for any damage that might occur by doing this project.

DD-1 DISK DRIVE and cable for CPC 464. **Phone 0925 267303**. Thank you.

PLEASE! Has anyone got a multiface with or without insider for Amstrad CPC+? Will pay up to £25 (£20 without insider). Ring Alex on 081 5676992. Leave number (answer phone).

PRINTER compatible with Amstrad CPC 6128. Must be in working order. **Tel 0785 841020.**

TURTLES TWO COIN OP GAME for CPC 464 cassette. Please write with price. Will pay good money. **David Coath, 15 Bell Piece, Sutton Benger, Wiltshire SN15 4SL**

COPY OR SPARE VERSION of Dee Kay Railway Simulation RTC Penzance or any Dee Kay System Driver Simulation Urgent request. **Tel 0727 840477.**

ELITE ON DISK will swap for 3 of these: Tau-ceti Tempest, Afterburner, Into Oblivion, Alien-Break In or Soul of a Robot. **Tel 031 334 9682.**

COULD SOMEONE give me some cheats for these games: Bart Simpson, Feud, Platoon, Double Dragon or any other cheats. **Ian Thompson, 16 Gore Hill, Sanford, Wareham, Dorset BH20 7AN.**

DD1-1 DISK DRIVE with interface. All offers considered. **Tel 091 2861669** after 6pm and ask for David.

AMSTRAD MP-1 MODULATOR for CPC 464. Please telephone **0904 84212** evenings.

DESPERATELY WANTED on disk, but tape is OK; Rainbow Islands and Taxi, swap or buy for a reasonable price. Please phone Angela on **0903 206739.**

MP-1 MODULATOR not scart please. Pay £10-£15, must be good condition. Write only, leave telephone number. **Robert Kell, 22 March Crescent, Cellardyke, Fife.**

USER INSTRUCTION MANUAL to buy or borrow for Amstrad DMP 2160 printer. Please **phone 0481 36099** evenings.

KICK OFF 2, will swap for SuperHero's (four pack). Also want software for speech synthesizer (tape). Please contact **Jason Gunn, 72 Ely Way, Abbey Farm est, Thetford, Norfolk IP24 1DV.** (all disk).

WILL BUY B.A.T. North & South, Iron Lord and others or swap for Prince of Persia, Lemmings, Fighter Bomber, Final Fight and more (originals). **G Teresinski, Al Raclawickie 4/7 20-028 Lublin, Poland.**

ORIGINAL 968 FIRMWARE MANUAL or information on the Z80, Video Gate Array, HD68455 CRT Controller, PD8255, PP1 and I/0 Ports. Phone **0474 365681** after 4pm.

DESPERATELY would like a copy of Brian Clough's Football Fortunes. Willing to swap two Dizzy games or Chuck Yeagers Flight Trainer or Badlands. Call David on **0375 843096** after school hours.

SPREADSHEET PROGRAMS Mastercalc 128 and CPM+ Supercalc 2. Prices to be negotiated. Ring Barry Bines on **0753 531024** after 6pm.

HAS ANYBODY GOT a spare version of CP/M Plus 1 on a 3" disk. I will pay for disk and postage. **Tel 0564 772497.**

6128+ COLOUR MONITOR also disks, educational and games. **Tel 0272 860854.**

WANTED Death Wish III for the CPC 464, will pay up to £3 for it. Or will swap for Dun Darach, Count Duckula and Popeye 2. **Tel 01 353607.**

CALLING all public domain libraries: I have over 50k of various unreleased programs available. Interested? Write to **Clive Jackson, 37 Essex Road, Stamford, Lincs PE9 1LG.**

AMSTRAD CPC 6128 SYSTEM wanted, plus modulator multiface II printer software. Swop for 1meg Amiga Plus Software Best System. This offer is genuine. Tel Mike **0785 714836.**

COPIES OF AMSTRAD ACTION numbers 20-28, 30-34 reasonable price paid, also want extension leads from monitor to keyboard for 464 or 464+. Reasonable price. Ring **0222 795161** evenings only.

AMSTRAD DD1-1 DISK DRIVE for CPC464 with interface CP/M2.2. Also cassette only Euro Boss and Football manager. Phone Jason on **0778 347190** after 4pm.

MP-1 MODLULATOR wanted for Amstrad CPC 464 and conventional TV. Good price paid, phone **0604 706545.**

WAR GAMES! Must be originals and complete. Fair prices paid. Contact **Mr B A Cullip, 47 Oldfield Road, Queenspark, Bedford MK40 4HD.** Please send SAE for replies.

DOES ANYONE have a speech synth for the CPC 6128? Tel Paul **0905 796367.**

COULD ANYONE COPY me the CPM disk for 6128? I will reimburse cost of blank disk and p&p. Thank you. Mrs George **081 319 2687.**

WANTED on disk, Laser Squad, Prince of Persia, Lords of Chaos, Iron Lord (English version) and PHM Pegasus. Tel **0225 768475** after 4pm. Will pay cash or swap for games.

PICK'N'PILE and Booly on tape for CPC 464. £10 each, paid for working original boxed. Phone Geoff **0509 673154.**

I NEED A CPC464 ROM and I will pay the postage and £2.00 to the first person that provides me with a working CPC464 ROM. Phone Gavin: **031 339 6644** between 6-12pm.

MPI FOR AMSTRAD 464 with aerial plug and not scart plug. Cash paid. Also wanted Prince of Persia tape. Will pay upto £3.50. Phone between 6.30-8.00pm on **0623 810476.**

WANTED on disk for Amstrad CPC 6128 Tetris original or copy. Tel 0962 712361 after 6pm or write **to 47 New Road, Colden Common, Winchester, Hants S021 1RU.**

BRUCE LEE Kufu Master and Teenage Turtles, one for the Amstrad CPC 464 cassette only. Will swap from list. Send SAE to **Steven, 41 Almond Ave, Ty-Sign, Risca, Gwent NP1 6PF.**

MP2 MODULATOR for CPC 6128. **Tel 062 082 2358.**

SERVICES

POWER PD new PD library, 25p per disk/tape side. Send SAE for catalogue. Latest issue of Fanzine CPC Power £1. **Richard Wild, 33 East Lane, Sandiway, Northwich, Cheshire CW8 2QQ.**

MPD SOFTWARE over 120 selections of quality Public Domain software. For a free catalogue send SAE to **23 Nobes Ave, Bridgemary, Gosport PO13 0HS.**

FILE TRANSFERS between CPC, Amiga & PC Format disks, 3"+ 3.5" only. Fast, friendly service & the cheapest. For more details tel **0446 736529** after 6pm/ anytime weekends.

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DO YOU OWN a dragon computer? Can't buy any new software? Write to **Derek Payne, Dragon Software, 89 Wolverhampton Road, Codsall, Wolverhampton WV8 1PL** for catalogue, with SAE (tape only).

THUNDER'N'LIGHTNING PD 20p per side per disk. For more info send a SAE to Yan Holland, 1 Queens Club Gardens, Trowbridge, Wilts or tel **0225 768475** after 4pm.

DOMAIN PD LIBRARY under new management. For stockist send SAE to **Barrie Snell, 65 Bath Road, Southsea, Portsmouth, Hants PO4 0HX.**

PD FUN! Now offers disks: 100% fun & 100% full (you pay for 178k - you get 178k) - **PD Fun, 41 Mitchelgate, Kirkby, Lonsdale, Via Carnforth, Lancs.**

GDPD SOFTWARE (IoW). PD fun bringing you the best! Cassette public domain software for the CPC largest library within UK. For details SAE to **LT Roach, 18 Sutton Close, Elmfield, Ryde, Isle of Wight PO33 1DA.**

Other

PENFRIEND wants to swap games, give help & tips. Male or female, 13 years old, 464 computer only please. **29 Beaufort Walk, Westwinds, Newtownards, Co. Down, N. Ireland BT23 4RP.**

DATA PD - a super library for all 464 owners. Many programs of all types. For info send SAE to **Data PD, 125 Carisbrooke Ave, Thorntree, Middlesbrough, Cleveland.**

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SEEKING PD SOFTWARE on tape. Where do I send my SAE & blank cassette? Send details to **L Hemmings, 29 Nelson Road, Brixham, Devon.** Will refund p+p by return. Thanks.

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IS THERE ANYONE who would swap their CPC 464+ with mono monitor for my CPC 464 with colour monitor, new joystick, loads of games, mint condition. Tel Dean **0792 587102.**

NEW EUROPEAN FANZINE on paper for the CPC. £1 and SAE (A4) or £1.50 inc p+p. French, English & Spanish writing inside the fanzine. **Eurostrad, 2 Bailey Place, Lossiemouth, Moray, Scotland IV31 6RN.**

CARTRIDGE SWAPPING club in association with Amstrad Addict. Free to subscribers! Over 30 carts. Send disk + SAE + 95p to John Anthon Gollogly, **Killarick, Carrickmacross, County Monaghan, Ireland or call 042 63787.**

SWAP Ikari Warriors, L.E.D Storm, Paper boy, Postman Pat & Double Dragon for Seymor Goes to Holywood, Bubble Bobble, R-type & New Zealand story. Tel **0241 71392** between 4.30-9pm Mon-Fri and ask for Scott.

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Power Up

CHARTS right here, right now • **ACTION TEST** pages 44-48 • **CHEAT MODE** pages 50-53

Games, we got 'em. It's been something of a bumper month (by recent standards) for re-releases, so we've got quite a few titles from days gone by to remind you about.



Tim Norris

It's been a busy month for Tim. He was so excited about having the chance to say 'lovely, smashing, super' in a review that he swiped *Bully's Sporting Darts* as soon as it arrived. Then we had to spend two days listening to him trying to do Jim Bowen impersonations and telling us that he'd had such a lovely day he thought he'd take the money and let one of the other couples have a go. Then *Bart vs The Space Mutants* arrived...



Simon Forrester

Simon, on the other hand, went crazy ape bonkers when he saw *Rodland*. 'I want this,' he said, with a manic gleam in his eye. 'It's all about smashing cute furry animals to bits.' We're worried about Simon. When he's not entertaining his mass-destruction fantasies, though, he's quite a pleasant and amiable chap. But he does come to work with a large bag. And the office cat's gone missing...



Nick Aspell

Hey, Nick, what have you done this month? 'I designed a load of pages, drew a load of pictures of discs and disc drives, ate a few kebabs, watched some movies, designed the cover, went out with my mates, tidied my flat, chatted to the lads in the scanning room, listened to the new Depeche Mode album,and slept a lot. Oh, and I gave some personal stereo speakers back to those nice people in Sega Power.' Thanks Nick.

The hit parade

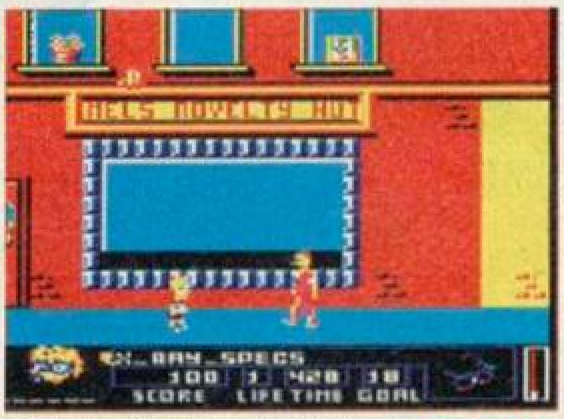
ELSPA PENGUIN CHARTS · GALLUP

1 Bully's Sporting Darts...Alternative
2 Terminator 2 ....H/Squad
3 Mini Office...................Alternative
4 Dizzy Down The Rapids C/Masters
5 Sergeant Seymour ....C/Masters
6 Jimmy's Soccer ....B/Belief
7 The Simpsons ....H/Squad
8 Dizzy: Yolkfolk.............C/Masters
9 Magic Land Dizzy ....C/Masters
10 Fun School 2 Over 8sH/Squad

Reviewed this month



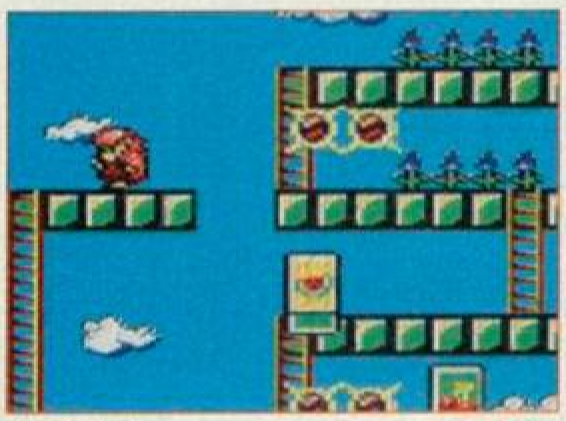
BULLY'S SPORTING DARTS Page 44

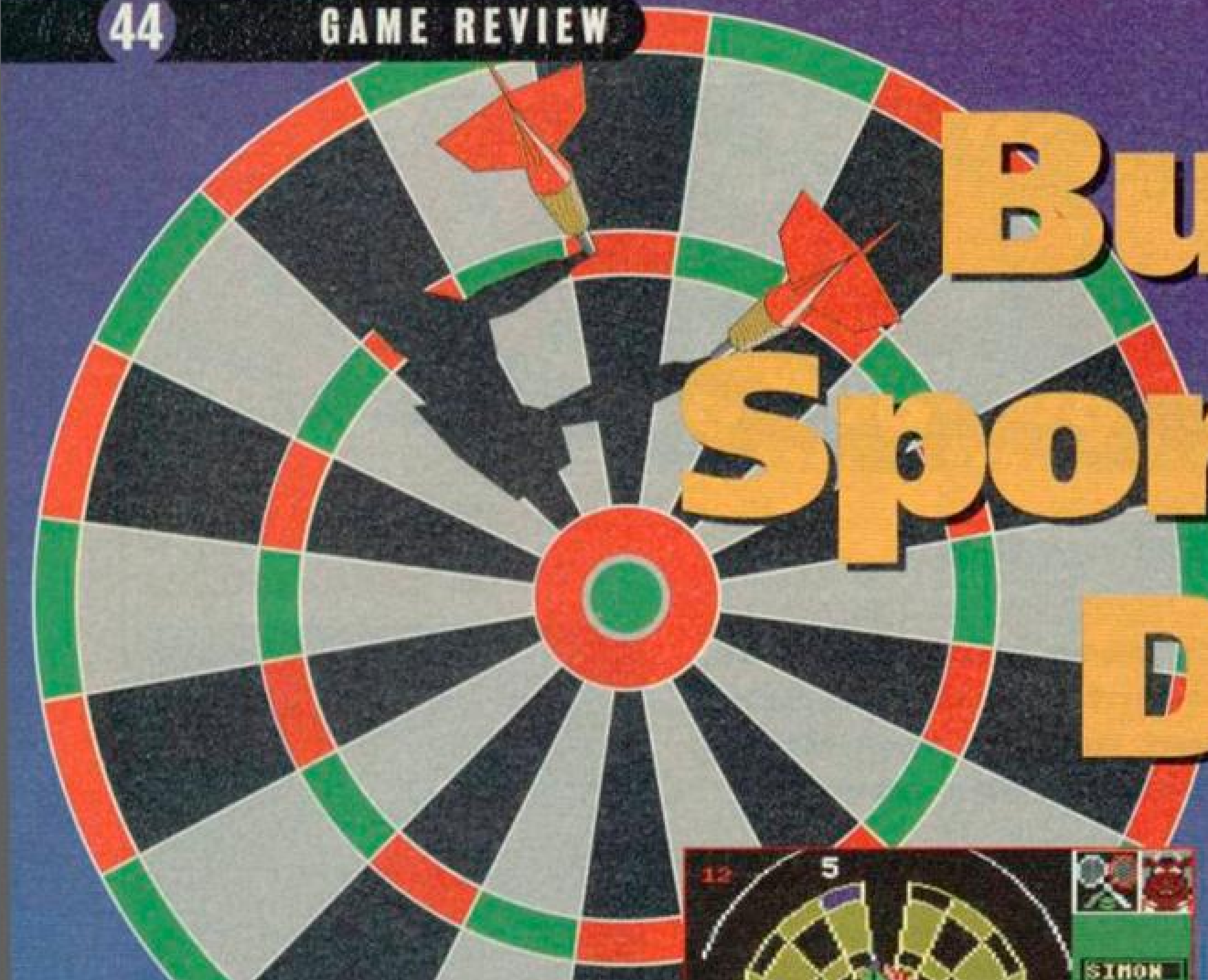


BART vs THE SPACE MUTANTS Page 45



4 MOST SPORTS Page 46


RODLAND Page 48



Bully's Sporting Darts

Alternative ■ £3.99 ■ 0977 797777



Get ready indeed, for the most utterly bizarre game of tennis you've ever seen.



Go on, just chuck it at the five. What do you mean, it keeps bobbing about improbably?



Hoping to meet that fat bloke who interrupts the game and fails to score 301 with six darts, Tim Norris approaches the oche.

There are tons of darts games and this is one of them. Will that do? No, thought not. The attraction of this particular variant is that it features everyone's favourite bovine sportsman, Bully. Dear old Bully, as you must surely be aware, is the fat ugly animated creature that interrupts Jim Bowen from time to time during the Sunday afternoon quiz, Bullseye (lovely-smashing-super-we've-had-a-lovely-day-Jim-let's-have-a-look-at-what-you-could-have-won). Sadly, the game has no connection whatsoever with the TV show other than in that it stars Bully. Jim doesn't appear at all. Still, never mind, eh?

Once you've selected your preferred variation of the game, Bully's hand appears on the screen and begins to bob improbably about the place. You use keys or joystick to control its up, down, left and right bobbings, and then launch your arrow (pronounced 'arra') towards the board. It's very tricky and quite amusing.

Ah, yes, but if that was all there was to it there wouldn't be much of a game for your four quid. A couple of games of 501 (a platform game where you have to buy some expensive jeans – no, just kidding) and you'd switch it off and go and cut the grass or something. That's why there's a whole load of other dart-based games thrown in as well.

You can play football, golf, snooker, tennis, cricket, and the traditional clock darts. Lawks a lordy. In fact, they're all just target games (they would be, wouldn't they?) but they do add a little extra fun to the whole thing, especially if you have a bunch of yer mates round.

Football was my favourite but they're all fairly bizarre and (mostly) entertaining. I didn't understand what golf was all about and cricket bored me stupid (quite a good representation of the real thing, then) and that made them the weakest of the games.

Over all, then, this is much more fun than I'd expected it to be. We wasted many a happy hour in the AA office playing darts instead of working and I can heartily recommend it for a bit of light and fluffy fun. Shame you don't win a speedboat at the end, though. ●



Football was our fave, with golf the most confusing and cricket the most pointless.

VERDICT

GRAPHICS — 75%
A dart board and a hand. It does the job but it won't blow your mind.

SONICS — 70%
Bleep.

GRAB FACTOR — 86%
Monstrously entertaining. The whole idea is very amusing.

STAYING POWER — 79%
You'll fetch it out occasionally when your mates come round, but it's not much of a stayer, really.

Lovely, smashing, super, let's have a look at what you could have won.

RATING 83%

The Simpsons vs The Space Mutants



The Hit Squad ■ 061-832 6633 ■ £3.99

We decided to let our resident under-achiever, Tim Norris, have a look at this one. It seemed appropriate.

The Simpsons, as you must be aware, were something of a phenomenon a couple of years ago. Their fame grew from the appearance of a few short cartoons in the middle of Tracy Ullman's American TV show. Before anyone could stop them they were starring in their own prime time series and kids the world over were inviting each other to 'eat my shorts', proclaiming themselves to be an 'under-achiever and proud of it' and advising their parents not to have a cow, man.

In this country they're still on satellite TV (and a million and one discarded key-rings) but it seems they're something of a spent force – yesterdays news. Loads of people still think they're funny (I do, for one), but they're not the craze they once were. So it's against this background of fading glory that the Hit Squad have re-released *Bart vs The Space Mutants*.



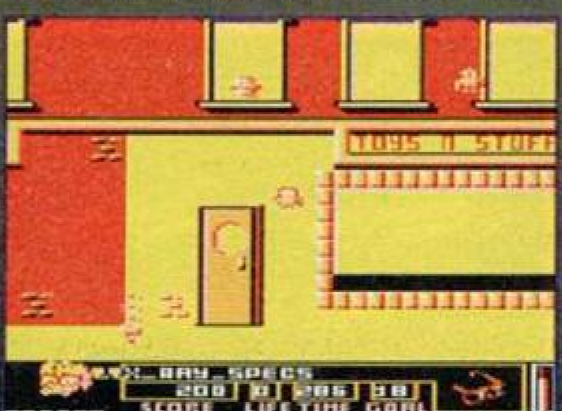
You'll believe a small unpleasantly yellow boy can fly. If only there were more to it...

So anyway, let's start with the plot. There always seems to be a plot, doesn't there? In a lot of cases the plot is just plain silly – like in the shoot-'em-ups where some evil space creatures have decided to steal the Diamond Moon of Zak and your mission, as Space Cadet Billy-Bob McTucket is to... blah, blah, and all you need to know is that if it's moving, you should kill it.

In *Space Mutants*, the plot is bizarre, but necessary (sort of). You have to understand, you see, that the Space Mutants have invaded the Earth and are collecting various objects with a view to creating the Ultimate Weapon. All young Bart has to do is to stop them.

It's important to know that otherwise you wouldn't understand that, in level one, for instance, you need to get rid of all the purple objects you find. Evidently the mutants need purple things for their weapon. I have to say that I thought this was a particularly amusing idea. On later levels the mutants are after different things (balloons, exit signs – you know, regular 'ultimate weapon' stuff) and this bizarrely surreal humour adds quite a bit to the game.

This is a Good Thing. The sad truth, you see, is that there's precious little game in there to be added to. It's essentially a collect-stuff-and-use-it arcade-adventure kind of affair with platforms thrown in (you know the sort of thing by now). Each screen contains a couple of obstacles and maybe something to collect. Then every once in a while you get the chance to use some of the stuff you picked up or bought. There's nothing particularly bad about it but, then again, there's nothing there to make you say 'wow, what a great game' either.



Why not pop in the toy shop and buy some fun stuff? It might come in useful later.



Not everyone's been taken over by the mutants. Your x-ray specs tell you who.



Don't have a cow, man. Bart's back, and this time he's got a can of spray paint (?)

And then there's poor old Bart who looks nothing like the real Bart Simpson. *(Bart's not real, Tim, he's a cartoon character. – The Team)* Maybe it's just the limitations of the CPC. Yes, that must be it.

It's nothing to write home about, that's for sure. If you don't own any other arcade adventures and you quite like the idea of being Bart for a bit, then you might want to take a look. But overall, Simpsons fans and game fans will probably be a bit disappointed. ●

VERDICT

GRAPHICS 73%
Not bad, but Bart looks nothing like the real Bart. Big sprites are a hassle, but might have saved it.

SONICS 77%
Not too shabby. The effects are pretty together and the whole thing works quite well.

GRAB FACTOR 68%
Unless you're absolutely determined to have a good time, you probably won't be grabbed.

STAYING POWER 79%
Although, surprisingly, if you do stick with it you'll probably keep coming back for a little bit more.

Not, if you're honest, a bad game, just not a particularly good one, either.

RATING 76%

4 Most Super Sports

Alternative ■ 0977 797777 ■ £3.99

We thought Simon Forrester was in need of some sporting activity so we let him loose on this compilation...

Kentucky Racing

Roll up, roll up! Ladiiies aaand gentlemen, this is a computer simulation of a fairground game! Yes, kiddies, yawn! Sigh! Fall off your chair! Throw balls up a slanted piece of wood, and watch powerful horses galvanise themselves into a slow trot. Fun, huh?

I'm, sorry. But I mean really... The Kentucky Race was a fairground game that travelled around the southern states of the USA. It was not a sport. The idea was to roll a ball along a piece of wood, aiming for certain holes. The further away the holes, the farther your horse went. More sophisticated models actually had some automatic horses moving (the earlier models employed short people in fancy dress or something). Wow. Fab. Lets make a computer game about it!

You, the brave and skilled athlete, master of your profession, pinnacle of horse riding fitness, get to control the throbbing mass of muscle and sinew, one four-legged running machine, by throwing a ball into a hole. This is more than a little worrying.



It couldn't be more fun. No, it could really.



It is, indeed, a very bizarre development.

That's the concept done with. So the game? Er, yeah. The graphics are nice and colourful, if a little garish in places (most places), but they do the trick. Sonics aren't exactly the height of 'bearable' either – with a version of 'The Camptown Races' that should make even the most mindless Rave fan collapse. Gameplay-wise, this game isn't winning any prizes either. It's got one 'skill' to master, and that's just how to get a hand to throw a ball. Hitting the holes is quite, quite random, you see.

You'll also need a little patience to play this game. Horses limping across your screen is one thing, but being forced to hear garish tunes before you're even allowed to play is pushing it a little far.

Sorry, but it'd be hard to justify this offering as a sports game, and even harder to justify a reasonable mark for it. If it's a horsey game then it's not very good, and if it's a throwing-the-ball-into-the-hole game, then it's got an awful concept anyway.

Rating – 25%



Oh no, it's a dodgy-looking geezer in a hat.

Championship Sprint

Remember all those sprint games? With the top-down view of a little track, and lots of little rectangular cars whizzing round? Fun, huh? The basic idea is four cars, two of which can be human players, have to burn round a track, and, obviously, try to win. There are a nice variety of tracks to try, with speed corners, bridges and such, and various power-ups to collect.

There are also quite a few problems with those little things in life. Like the other cars. You know, the ones with better acceleration than your car, better grip than your car, and a completely



Someone there's looking the wrong way.



Oh no, the computer has taken the lead.



You've lost. And it only took six hours.



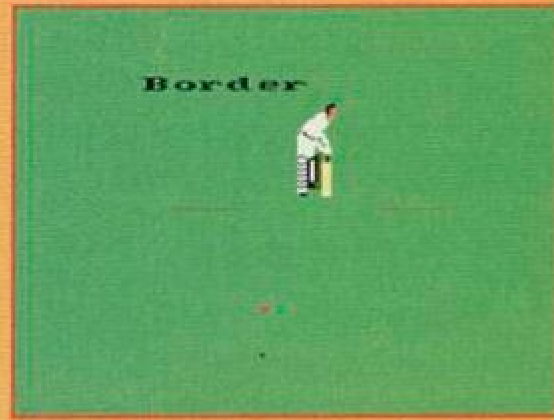
Choose either of these uncontrollable cars.



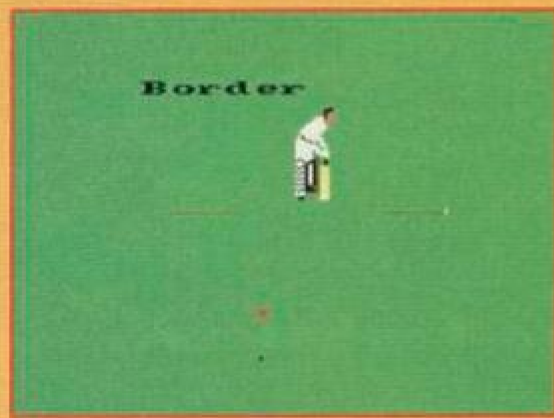
Stats and more stats. And there are stats too.



The bowler runs like Bod. Where's Aunt Flo?



Don't be silly, that's not Alan Border.



Don't be silly, that's... oh, we've done that.

pre-defined route that lets them bomb round the track without crashing once. Fun, huh? Remember *BMX simulator*? With the opponent rider who was hell on wheels? At least with *Championship Sprint* they don't ride straight through you. You're effectively racing ghost cars round the track. So forget any cunning crash tactics, they don't care – they just sail on through the middle of you.

So you're up against some pretty stiff competition. The other thing that counts against you slightly is the fact that your car seems to be covered in glue. Yes, boys and girls, glue. You see, when you crash into a barrier, you don't bounce off. You don't scrape down it, and you don't die. You just stop. And you can't start again. You seem to stick to this barrier, so you have to very slowly inch your car out of the way, then rocket off ready to smash into something else. I would have felt much better if I'd have seen some of the other vehicles crash, but I didn't. They just burn by, laughing. Because if you get behind just once, they'll have lapped you before you can blink and shout 'This is crap!'.

There are some power-ups, such as point bonuses, car repair thingies, and such, but apart from that, it's just a very simple racing game, dating from the *Super Sprint* series, which also lacked content. *Championship Sprint*, however, lacks content and quality.

Graphically, you won't have any problems, as it does look reasonable, but the total lack of all gameplay turned me cold. Be warned though – when you start playing, don't expect to be grabbed. Staying power is a joke as well, by the way. If you keep it loaded for anything over 5 minutes, have pity on me, 'cos I had to play it for a lot longer than that.

Rating – 30%

Cricket International

Hold on a minute! I'm a seasoned CPCer! I've seen this somewhere before! Oh yes, that's it! It's *Tim Loves Cricket* from Peaksoft. If you don't remember it, don't worry, it was probably a bit before your time (Argh! I must be getting old to write something like that!) Anyhow, witness probably one of the strangest cricket games in existence, in which it's not only the bat and stumps that are made of wood.

So, you start the game by looking at thousands (well, it seems like thousands) of statistics tables of the various players, and their various bits and bobs. This could probably be all very interesting to hardened cricket fanatics, but to the average game-reviewer in the street, it is just a little tiresome.

But in due time, the action begins. And what action it is. This sort of Lego™ man (not the shop-window-display quality stuff, but the six-year-old stuff) shuffles left and right, finally clicking (and I mean clicking) forward and throwing the ball.

Said ball then flies up the pitch. When the ball gets to the batsman, you (if you're batting) get to attempt to hit it. Well, block it. It's very rare you'll manage to crack it straight back through the bowlers head, but you might get it a fair way.

Cut to pitch. The ball flies off, while the computer's fielders (represented by UDG men – ugh!) run after it. You can then control your running batsmen using up and down joystick waggles.

All very fun. Now the computer is in bat. You shuffle the bowler. Press fire. He throws the ball straight. None of the fancy trick shots (or is that snooker?) that the computer manages, just this dead lump of string flying through the air. The CPC's batsman then performs some lovely acrobatic moves, and cracks the ball for a six. Your only hope now is the excellent fielding team!

So this ball's flying through the air at the speed of sense. One of the fielders is flashing. *(Careful. – Ed)* To select which fielder you're using, you press COPY. Each fielder flashes in turn. *(Oh, I get it now. – Ed)* Slowly. By the time you've managed to select a fielder anywhere near the ball, it's hit the boundary, the game has finished, and the computer team is inside eating cheese and cucumber sandwiches.

So, for a game that has a variety of different matches, and a nice way of setting up customized teams, it could so easily have been brilliant. It is brilliant, except for one tiny flaw – it's ludicrously crap. Maybe that's a bit harsh – surprisingly crap. Sorry Alternative, I'll send a wreath.

Rating 20%

US Basket Master

At the time of writing, *US Basket Master* was not available for review. This, unfortunately, is the luck of the draw sometimes. We'll probably review *USBM* separately in a future issue, but until then, I'm afraid you'll have to wait.

And finally, Esther...

So, this has been a bit of a non-starter of a sporting compilation, hasn't it? It's hard to say what exactly will have gone wrong. The problem so far seems to have been the run of weak titles – one completely naff game, one moderately bad conversion, and one title so old it was released first on gramophone record. Apologies to Alternative, but I really can't give this compilation the kind of mark that's going to make you go out and buy it – even if *USBM* turns out to be the greatest game ever. You might actually enjoy the odd one or two of these, but not for long.

Overall Rating: 25%



This is a diagram of your lower intestine.



No, I tell a lie, it's Championship Sprint.



Balance on this balloon if you like, but the cute fox (which you must kill) is down there.



As far as we can make out, these cute things are furry space-hoppers. Who cares. Kill 'em.



Lots and lots to see, do and collect. But what's this? There's nothing left to kill.

Rodland

Kixx ■ 021 356 3388 ■ Cassette ■ £3.99

Simon Forrester goes cute bashing, and loves it...

In the beginning, there was cute. Then, as the mountains of fluffy pink things started to erupt, DJ Puff was slammed for being a little too cuddly. So what happens when AA towers are hit by a blimp of fur? Do we evacuate? No. We sit down and review the blimp – Rodland. *(Is it me or was all that ever-so-slightly surreal? – Ed)*

So, there's these two pixies, called Tam and Rit, who's 'Mom' has been taken prisoner by some villainous thing. Anyway... These two fluffy things (I envy that hair) journey through the vast and treacherous Rodland, killing fluffy things.

Enter screen one with Tam and Rit standing in wait. A cute furry space hopper sidles up. The seemingly passive Tam grabs it and flings it over his head. Thing hits the floor – poor thing. Tam hasn't let go. Instead, he's thrown him the other way. And back. Thing dies. This fairy tale has suddenly turned into a furry massacre, and that's the whole point of the game. It's a platform fur frenzy. Okay then...



For some ineffable reason, all this killing of cute furry things never seems to get boring.



You don't just kill things, you swing them repeadedly over your head until they explode.

There's a fun range of things to nobble, from furry lumps, sharks and lobsters, to clouds. There's also an impressive range of *Cybernoid*-style ways to kill them with the weapons left behind when Tam or Rit kill something.

First, there's the standard missiles that fire when you touch them, obliterating so many cuddly toys on their way. There's bouncing bombs, that move round the screen and usually manage to take out most of the bad guys, and there's dynamite, which sends a horizontal blast in both directions, killing lots of poor, unsuspecting (but incredibly violent) balls of fluff.

The fun doesn't stop there though. Tam and Rit can build ladders, allowing them to get to unaccessable platforms, jump through doors (kind of like a teleport), float on balloons, and do all kinds of wonderfully cute things that'll aid him in the relentless slaughter of more things. A few points bonuses (as bounty on the critters' heads), and that's all there is to it as far as concept, gameplay and everything else is concerned.

Graphically, *Rodland* is pleasing. The graphics are all well animated, with loads of different creatures, each of which has its own movements, characteristics, and speed. The game is complemented with a variety of backdrops, with sky, clouds, and the odd wall.

The sounds are all quite cute as well. There's a garish little title tune that'll make you quickly reach for the volume control, but once you get into the game, the sound effects are used sparingly and effectively, with a fairly terrifying skull crunching sound to complement the brutal abuse of the cuties.

Gameplay is excellent. What more can I say? You're running round, splatting everything in sight, and it feels great. You've been provided with a whole arsenal of anti-cute weaponry, all of which you can use with the greatest of ease.

There are still a few niggles you'll have, though. Every now and again, you'll get swamped with fur, and somewhere inside that lot, you'll be dying. It's also impossible to pick up half of your bonuses, as you only get about two seconds after all the fluffies are dead to collect them.

If you thought *DJ Puff*, or maybe even *Seymour* was cute, you must see *Rodland*. Normally I hate cute-em-ups, but this goes beyond that. It's two-year-old-with-clocolate-round-the-mouth cute. You expect Tam to give the bad guys a nasty pinch rather that cave their heads. Got the idea yet? CUTE, OKAY? Altogether, it's a worthy title. The levels multiload, but won't take that long and are worth the wait, so if you haven't already got it, go out and get it. ●

VERDICT

GRAPHICS 88%
Carefully detailed and beautifully animated sprites, and tasteful backgrounds really add to the

SONICS 80%
In game effects use sparingly and effectively, but naff title tune.

GRAB FACTOR 90%
Ever wanted to crush the Easter chick? Now's your chance.

STAYING POWER 90%
And the roar of the crowd and the sound of fluff against fluff never leaves you.

Cute cute cute cute cute cute cute cute cute cute cute cute cute cute (To the tune of 'Amazing Grace').

RATING 90%

Cheat Mode

I'm so Dizzy, my head is spinning. Phil Howard's been collecting loads of Dizzy solutions just for you.

Colin Mullholland of Belfast is first up with his tips for the second adventure (are you still there Colin?).

TREASURE ISLAND DIZZY

- Use the empty chest as a stepping stone to get over the hill on the right-hand side of the beach.
- Wear the rubber snorkel when swimming.
- Drop the Sinclair mag in the water near the coin on the beach.
- Use the sticks of dynamite to clear the rocks that block your path in the mine.
- Use the infrared detonators with the dynamite.
- Use the glass sword in the graveyard to open the entrance to the smugglers cave.
- Wear the snorkel.
- Exchange the bag of gold with the shopkeeper for the motor boat.
- Exchange the small video camera with the shopkeeper for the dehydrated boat.
- Exchange the cursed treasure with the shopkeeper for the ignition key.
- Exchange the microwave with the shopkeeper for the gallon of petrol (for the boat).
- Drop salt water spade on moving rock underwater. Jump on bubbles to get to the other side of the island.
- Drop the woodcutter's axe in the centre of the bridge to get to the caves below.
- Use the holy bible to stop you getting hit by lightning when holding the cursed treasure.
- Give the empty bucket to the shopkeeper.
- Take the large golden key to the smugglers cave and drop it on the half sunken barrier to gain access to the old kitchen.
- Drop the dehydrated boat in the water at the end of the quay and the boat will appear.
- Drop the outboard motor in the same place as the boat and the boat will change colour.



If we live to be as old as Rod, we'll none of us ever understand the appeal of Dizzy.

DIZZY

PRIZE WINNER

And here comes James Clarke of Cramlington with the solution to another.

- Go left into the village.
- Collect the grease gun and go left to the mine.
- Drop the grease gun next to the cart.
- Enter the mine and go right and get the ghost hunter's laser.
- Go left then down.
- Kill the ghost by falling on top of it.
- Go right and down and collect the purse of gold.
- Get out of the mine and go back to where you started.
- Go right to the old tree house.
- Stand on cup and get gold.
- Get to the top of the tree house and jump up.
- Collect the cloud silver lining and go to the start screen.
- Drop the silver lining in the cauldron.
- Go right and collect the burning torch.
- Stand next to the cauldron and drop the torch.
- Go above the mine and collect the Acme bird seed.
- Make your way to Dizzy's End killing the birds on the way.
- Drop the seed, go back to the mine and get the key.
- Go to Dizzy's End.
- Dodge the raindrops and open the door.
- Get the birdseed and go right twice killing the birds.
- Get the Vampire Dux feather and go to the start.
- Drop the feather into the cauldron.
- Go to the place where the ghost was in the mine then right three times.
- To get past the little river jump straight up in the air.
- Get the 3 in 1 oil.
- Go to Dizzy's End then through the graveyard to the drawbridge.
- Drop the oil and go across the drawbridge.
- Use the insecticide to kill spiders.
- Go up the stairs and right to collect the troll brew then back to the start.
- Drop the brew into the cauldron.
- Go right five times and climb the tree.
- Collect the spade and climb back down.
- Go left stand in the middle of the screen and drop the spade.
- Fall down the hole.
- Work your way to the trowel.
- Drop it on the springy mushroom under the hole.
- Stay in the caves and go right twice to get the cutters.
- Exit the caves and go to the mine where the key was.
- Go right twice. Drop the cutters on the chain.
- Make your way to the leprechaun's wig.
- Go back to the start and drop it in the cauldron.
- Go to Zak's castle and collect the broken heart.
- Go to the screen left of the drawbridge and give the woman the heart.
- Go down the hole again and get the diamond.
- Go to the start the left five times.
- Drop the diamond on the thin ice above the lift.
- Go left and up and get the bottle of dry Ice.
- Go to where you smashed the ice and fall down.
- Go left to the red box.
- Drop the dry ice and walk across the water when it has hardened.
- Go left and down the hole to get the amulet.
- Go back to Zak.
- Let two bolts hit you then drop the amulet.
- Go back to the collapsible bridge.
- Collect the potion.
- Drop it on the cauldron and pick it up again.
- Go to Zak and drop the bottle near him.
- The game is complete.
- That was easy, wasn't it?
- Yes, it was.





It's okay, you can stop all that expensive research. Stonehenge was built by eggs.

- Use the ignition key on the boat.

17 of the coins are visible 18 are hidden from view here they are:

- 1 behind the plant on the beach.
- 1 behind the plant on the bridge.
- 6 In the tree house complex including 1 behind the window of the tree house on the right hand side.
- 1 behind the mushrooms.
- 2 behind the wooden railings.
- 2 behind pieces of tree trunk.
- 1 behind the plant above the mine.
- 1 Under water hidden behind the skull on the sea bed.
- 1 in the pirates cave under the skull.
- 2 Near the shop, 1 behind the rock on the left, and 1 on the right obscured by a plant.

Magicland Dizzy

- Go left and collect the back door key.
- Go left and talk to Dylan the bush.
- Go left and Jump over the well.
- Walk onto the shark, keep going on the fin till you get to the other side.
- Collect the empty milk bottle.
- Drop the back door key and the empty milk bottle.
- Go left and collect the handle.
- Exit top right via the stairs and walk left.
- Keep going left and jump over the gold cross, exit left.
- Walk to the stairs, jump left twice and then jump right.
- Walk right all the way, jump left and collect the power pill.
- Make your way back to the gold cross, but don't pick it up.
- Exit right, walk right, jump over the bottom right exit.
- Walk to the pillow on the bed and jump right.
- Wait for the bat to start flying to the right.
- Jump right, and walk right falling through the cloud.
- Walk to the right of the well roof, jump right and then left.
- Collect the cloth duster (be quick you fall through the clouds).
- You will land on the well roof, walk right to get off it.
- Jump left over the well entrance.
- Drop the handle where you land and collect the empty bucket.
- Drop the cloth duster.
- Go right and keep going till you get to Weirdhenge.
- Go to the right hand column, make sure you have the power pill.
- Place Dizzy on the left hand side and jump right, you should have killed a ghost.
- You should also have landed on a boulder so walk right, then left, at the right hand side of the boulder jump right.
- Jump right again and you will kill the other ghost.
- Collect Dore the frog (free her in the throne room by getting the prince to kiss her) and jump right.
- You will land on an island, have a chat with Glenda.
- Walk as far right as possible and drop the power pill.
- Jump right, right and right again (avoid the birds).
- Put Dizzy on the second step and drop the bucket.
- You automatically pick up the bucket of hot geyser water.
- Exit left and pick up the Drink Me potion.
- Go right and right again.
- Drop the bucket and the Drink Me potion.



Just when everything seemed to be going so well, Dizzy was crowned 'Prince Omelette'.

- Go right and right again.
- Go up the stairs then right into the tower with a view.
- Jump right at the pillow.
- Jump right three times and walk to the right of the well roof.
- Watch out for coconuts the cheeky monkeys throw.
- Jump right twice and collect the big stick.
- Walk to the diamond on this screen and jump left.
- Walk to the edge of the platform and jump right.
- Go up the platform to the edge and jump right.
- Collect the black cat, walk to the far right an jump right.
- You should have landed on Weirdhenge, collect the diamond.
- Collect the dagger.
- Walk to the far left and jump left.
- Mind the torch on the screen to the left of Weirdhenge.
- Go left until you see Dylan again.
- Drop the dagger, collect the leaf, drop the dagger again.
- Collect the leaf and exit right.
- Go right until you see Glenda on the island.
- Drop the black cat on Glenda and she will help you with Dylan.



And there, in the bushy grove, stood an irritating small egg with arms and legs.

- Drop the leaf and she will put it in the cauldron.
- Go left and keep going to where you dropped the dagger.
- Pick up the dagger then exit left, collect the cloth duster.
- Exit left, go on the shark fin till you get to the other side.
- Go left until you get to sleeping Dozy and drop the cloth duster.
- Exit left and drop the dagger on the goat.
- Drop the big stick to hit the goat (no, really).
- Drop the big stick again.
- Go all the way back to the moving bridge.
- Collect the bucket and Drink Me potion.
- Go right and right again, then up the stairs.
- Make your way to the gold cross and pick it up.
- Go left and position Dizzy on the first or second step which lead to the top right exit.
- Jump and walk left to the edge of the window ledge.
- Take a big jump to the left.
- Keep walking until you meet Denzil the ice block.
- Find out what happened then drop the bucket.
- Exit left, keep going until you meet Vampira.
- If you have the gold cross, no problems.
- Exit bottom right and walk left off the stairs.
- Walk right into the burning torch and collect it.
- Once collected, the secret door will have opened.
- Walk left then right to the opening.
- Jump into the exit and find poor Daisy.
- Chat with her and then drop the Drink Me potion.
- It will reduce her to normal size.
- Make sure you still have the gold cross.
- Go to where you cured Denzil and collect his personal stereo.
- Drop the gold cross.
- Go right, and keep going to the screen before the shark.
- Go up the stairs and into the room with the bed.
- Go to the pillow jump right, then left to the top of the bed.
- Walk to the far left and then jump left.
- Walk left until it is possible to go up the stairs.
- Go up the stairs and exit top right.
- Collect the lightning rod and exit bottom right.
- Keep walking left to the window ledge.
- Jump in the trees as you did before.
- Walk left, and jump left when you enter the screen below.



If only there were something really heavy in the bucket, he'd be smashed on the well.

- Walk left to the first platform up and jump right.
- Walk to the edge of this platform and jump right.
- You should be next to the bard.
- He will ignore you.
- Drop the personal stereo and collect the magic pipes.
- Go right to the well.
- Drop the torch.
- Go down the well and place Dizzy on the diamond.
- Collect the diamond and drop the magic pipes.
- The pipes will make the rat fall asleep.
- Wait for the rat to fall down the well then jump left.
- Go through the forgotten cave, jump left over the water.
- Exit left collect the ancient lamp but mind the dripping slime.
- Keep jumping until you reach the castle again.
- Make your way to sleeping Dozy.
- Drop the ancient lamp on him.
- Collect the cloth duster.
- Make sure you have the lightning rod.
- Drop the cloth duster, twice on the lamp and Dozy is cured.
- Collect the poisoned apple.
- Drop the lightning rod, exit right and drop the cloth duster.
- Make your way back to the well.
- Collect the burning torch.
- Go to Glenda on the island.
- Collect the diamond.
- Give Glenda the poisoned apple to put in the cauldron.
- Give Glenda the torch to light the fire.
- She will cast a spell and create the weed-killer potion.
- Just Grand Dizzy left.
- Go to the well and fall down it.
- When you enter the cave collect the red sticky something.

Fantasy World Dizzy

- Give the apple to the troll.
- Take the jug of water and throw it on the fire.
- Take the loaf and go left.
- Get the boulder and exit top right.
- Drop the loaf as near to the rat as possible.
- Follow the rat and exit top right.
- Drop the boulder at the bottom of the stairs.
- Walk up the stairs and stand on the second stair down.
- Jump left, walk left then pull the lever.
- Jump right into the banquet hall talk to Denzil and get the rope.
- Go to the entrance hall and drop the rope.
- Go to the banquet hall and jump on the table.
- Walk to the far left then jump further left.
- Jump right twice in to the castle staircase.
- Walk up both sets of stairs and jump left at the top into the attic.
- Come back down the stairs and go right.
- Stop as soon as you enter the room, then jump right.
- Get the key and go to the entrance hall.
- Drop the bone, get the rope, and go right to the alligator.
- walk as far as you feel safe and wait.
- The alligator snaps three times then stops.
- On closing of the second snap jump right.
- Drop the rope and Dizzy does the rest.
- Jump right and get the boulder.
- Go right, stop by the tree and drop the key.
- Go back to the entrance hall and get the bone.
- Go left across the moat and portcullis.
- Go left until you fall down then go right at the boulder.
- Get the boulder and drop the bone.
- Walk left and then jump right above the den and wait.
- The rhino will walk into his den and stay there.
- Jump from where you are and keep going to the guard house.
- Stop at the tree stump.
- When crossing the screen wait until the hawk is behind you.
- Jump up the boulders and stop at the broken bridge.
- Drop the two boulders, get the third and do the same.
- When the third boulder has been dropped walk left.
- Jump from the piece of wood and jump left to get the key.
- Walk left and keep going until you come to the pier.
- There is a hole in the pier so jump over it.
- Go left and talk to Dozy to get the sleeping potion.
- Make your way back to the wide eyed dragon.
- Drop the potion near the dragons head and wait for it to fall.
- Get the key, go left to the well and get the red bag.
- Jump right twice and keep walking right.
- When you see the little cow pick it up and walk right.
- Go to the base of the volcano and pick up the key.
- With the three keys walk left until you reach the lift hut.
- Try all the keys on the motors and exit the way you came in.
- Go to the allotment and jump onto the platform in the tree.
- Go to the edge and jump left.
- Walk left and jump left, followed by a right and left jump.
- You should have rolled into the Dozy hut and go to the lift.
- Get off at the top and walk right to leave the screen.
- Walk right and stop at the torch then jump straight up.
- Walk right and get the door knocker.
- Go back to the lift, find and talk to the Grand Dizzy, get the crowbar.
- Go left and get the pickaxe then go to the well.
- Drop the crowbar and wait for Dizzy to do his stuff, then fall in.
- Checklist – door knocker, pygmy cow and pickaxe.
- Go left and wait for the shop keeper, when he appears give him the cow.
- Get the bean and go left, jumping the well.
- Jump onto the platform and go right to the chapel.
- Jump right onto the first wall.
- jump right again then fall left.
- then jump right again and get the key.
- To get onto the wall jump left, jump right and jump left again.
- Fall up!
- Go to the castle staircase and move to the door.
- Drop the door knocker and enter to get the bucket.
- Go to the base of the volcano and drop the bucket in the water.
- Get the bucket and go to the allotment, drop the bean and the bucket into the manure.
- Make your way up the beanstalk to the first cloud.
- Jump right twice, jump left then right a further five times.
- Jump over the gap in the clouds and get the egg.
- Make your way to the lift control hut and use the last key.
- Fall down the hole and go down on the lift, then drop the egg.
- Wait for the dragons head to fall then go right.
- Go to the middle of the next room.
- Jump left, right and drop the pickaxe.
- Go left and get the carpet.
- Go right until you meet the Troll.
- Go to the cloud castle.
- Be careful of the spikes and drop the carpet.
- Jump right, jump left, then walk left to the first little brick.
- Jump right and stand by the lever, down comes Daisy.
- Go and get her.
- Then go and get the coins.
- That's it.
- No, really.



Ah, a rat. Do rats eat eggs, do you think? If it would just eat one egg in particular...

- Make your way back to Excalibur.
- Drop the sticky something on it.
- You will not be able to let go of Excalibur.
- Go back to the Ice Palace entrance.
- Exit left, go down the steps and jump left.
- Jump right walk right and jump left.
- Jump to the hole in the wall and go to the far left of it.
- Take a big jump to the left.
- Collect the diamond and walk left.
- Walk right and enter the mirror in the wall.
- The controls are now reversed.
- Walk into the Queen of Hearts and exit left.
- Make your way across to Grand Dizzy.
- When you fall on him all the characters are cured.
- Go to the volcano base where you filled the bucket.
- Go to the last step and jump right.
- Step on the large rock and walk right.
- You will see clouds coming from the hot lava.
- When a cloud comes from the middle do the following:
- Jump right onto the cloud, walk right for a split second then jump right again.
- Exit right, exit bottom right go down the tunnel.
- Watch out for the fire which moves across the screen.
- Walk to Hades, before you get to his fir barrier he will talk and give you the Wizardkiller Trident.
- Collect the trident and take it back to Zak's in the Ice Palace.
- Make sure your energy bar is full when you enter Zak's room.
- Drop the trident.
- Collect Zak's ring and make your way back to Hades collecting all the diamonds left.

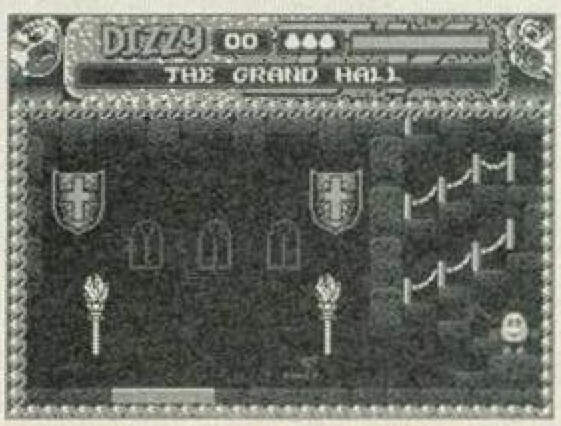
There are 30 diamonds in all, 27 in view and three hidden.

- Behind the railing (screen where Dylan was).
- Behind the railing (screen where Excalibur was).
- Behind the railing (screen to the left of Hades).

- Go to where you collected the Wizardkiller Potion and exit left.
- Walk left to the edge of the rock and jump left.
- Drop Zak's ring and make your way back to Hades.
- He will cast a spell for you if you have all 30 diamonds to take you home.
- And that's your lot for this one.
- Are you still reading this?

DIZZY PRINCE OF THE YOLK FOLK

- Take the jug of water, matches, pile of leaves.
- Drop the leaves by the door, use the matches, and then the water to quench the flames.
- Talk to the bugle boy who will give you a magic carpet.
- Go left and pick up the heavy pickaxe.
- Go right, jump onto the platform, go right twice.
- Pick up the small cage and talk to the lion.
- Go to the bottom of the hillside and drop the pickaxe.
- Go left then up and get the gold nugget.
- Go back to the hillside and drop the pickaxe.
- Go right to the bank of the river Styx.
- Catch the boat (be careful to move with it).
- Make sure that you have the gold nugget.
- Talk to the ferryman.
- Go right to the enchanted forest and drop the small cage by the Pogie.
- Go back to the top of the hill. Jump from the right of the screen and you'll land on the cloud.
- Get the Acme bridge kit.
- Go up to the tree house in the enchanted treetops. Jump onto the little platform near the right of the screen.
- Drop the bridge kit.
- Moving up jump from the rightmost platform. You should land on a cloud.
- Jump onto the next cloud and off the screen (but not from the edge of the cloud - you'll land in the nettles).
- Pick up the golden harp.
- Go right and jump the river.
- Go up to the uppermost branches, then left.
- Jump over the awfully high clouds.
- Talk to St. Peter.
- Drop the golden harp, he will give you some holy cheese.
- Go back to Pogie. Drop the cheese in the cage.
- Take the caged fluffle to the castles rear entrance.
- Drop Pogie by Rockwart and enter the castle.
- Go up the stairs and left then up the next set of stairs.
- Go to the castle ramparts and pick up the rusty old key.
- On the other side of the stairs and landing pick up the outboard motor.
- Go back across the river Styx.
- Give the motor to the ferryman. He will give you a scythe.
- Return to the tower drawbridge and use the scythe to clear the nettles.
- Go up to the Double Trouble screen. DO NOT pick up the spanner.
- Go through the inner sanctum into the deserted tower.
- Use the key to unlock Daisy's chamber.
- Don't bother kissing her it doesn't work.
- Go back down, then past the bat and pick up the tweezers.
- Go to the top of the hill.
- Use the tweezers on the lion. Take the sharp thorn to the double trouble screen.
- Drop the thorn when you enter the screen.
- Go round to the top level. When the evil Dizzy walks over the thorn it will die.
- Get the spanner.
- Pick up the brass bugle.
- Give the brass bugle to the bugle boy, he will give you a jolly joke book.
- Go to the castle drawbridge, drop the spanner on the jammed mechanism.
- Enter the gardens and talk to the princess.
- Give her the jolly joke book and she will give you the regal flag.
- Take this to the castle ramparts and hang it on the flagpole.
- The Bugle boy comes to see if the king is back yet. Talk to him.
- He calls the king, who will make you prince of the Yolkfolk.
- Go to Daisy and wake her up with a kiss.
- All you need to do is collect the cherries to complete the game. They are:
- Above the dungeon in Trapped.
- By the torch in A Few Trees.
- Behind the small cage in Top of the Hill.
- Near the gold nugget in Top of the Hill.
- By the rocks in Hillside.
- Under the railing in the Enchanted Forest.
- Under Pogie the fluffle in the Enchanted Forest.
- Under a railing in Enchanted Treetops.
- By some stone blocks in Edge of the Tower.
- On the cloud in Fluffy Cloud.
- On the rampart in Castle Rampart.
- On the stairs in Castle Rampart.
- In the bushes in Tower Drawbridge.
- Beneath the roof tile in First Landing.
- Behind strange mechanism in Inner Sanctum.
- By the wall in the Deserted Tower.
- Behind the greasy spanner in Double Trouble.
- Under a clump of grass in Castle Drawbridge.
- Under a clump of grass in the Castle Gardens.
- Under a stone block in the Castle Gardens.
- That's it till next month, then.



You must be getting the message by now. We hate this stupid egg and can't think of...



...a single thing to justify its existence. Except that some of the games are fun.

Reaction

Don't just sit there. Commit your thoughts to paper and send them to us. This lot did and look what happened...

Free comms

If you have a serial interface you can do without a 'proper' comms package to transfer files from the Amstrad Notepad.

On the Notepad, open a file called CONTROL-Z. Hold down SYMBOL and SECRET/MENU and select the right arrow (six characters from the right on the top row).

Save the file.

Set the transmission speed to 1200 with FUNCTION-S and SECRET/MENU on the Notepad. Use SETSIO 1200 on the 6128.

Type:

```
PIP filename=AUX:
```

on the 6128 and then send the file from the Notepad. When the Notepad shows the file has been sent, press STOP and send CONTROL-Z. The 6128 will now burst into life and save the file to disc.

In case it isn't obvious *(It isn't to me. – Ed)* the right arrow special character replaces CONTROL-Z on some printers, hence its use on the Notepad. But CP/M uses it as its 'end of file' marker and will not 'close' the file until it has received it.

John R Hudson
Huddersfield

Dead Multiface Sketch

I've had a Multiface 2 for about a year and a half and now, when I put it in the back of my CPC464 and turn it on the screen stays blank. I've tried turning it on and off a few times but I just get fuzzy lines on the screen.

Is there any way you can help me, please – you've got so many Multiface cheats. It'd really cheese my friend off because he said I'd never get it working.

A Reader
Somewhere

Ah yes, er sorry about this, but your friend's going to remain in his un-cheesed-off state because he's right. Your Multiface is, sadly, deceased and your only option is to replace it. Bummer, eh? ***TN***

Teenage Mutant Who?

About six months ago I bought *Teenage Mutant Hero Turtles – The Coin-Op* which I enjoyed playing immensely. Then a couple of months ago I lost the code sheet necessary to play the game. I was devastated.

I wrote to Mirror Image, but they've gone into liquidation. Can you help me get the code sheet, please?

Eric Walker
Guildford

Can anyone help Eric with a photocopy of the codes? He really does own the game (he sent it to us to prove it).

Oh, and we have no special magical influence over computer tapes. If your games don't work we can't fix them, so don't send them to us. We've had a couple recently with notes on saying 'please mend this for me'. Sorry, but we can't. If we get any more we'll throw them away. ***TN***

Damn those busters

I am the proud owner of an Amstrad 6128+ and a short time ago I bought a flight simulator called *ACE*. I put the game in and typed CAT and a list of all the files appeared, including one called →

Miserable old...

I have been an AA fan since issue 9, but recently you seem to have lost the old magic.

1. The new logo is crap (how long did that take to knock up?) and a pale imitation of the old (with triangle).
2. Cut down on the wibble and back-slapping (eg Power Up, Help Yourself, Future Shocks). If you really want to save the CPC, give us more Techy Forum (only 3 pages?) and Public Image to encourage and help new programmers.
3. Simon Forrester's reviews are diabolical. They say nothing about the game and are just extended ego trips trying to make himself sound funny.
4. Get yourself a spelling checker. You spell word processors with a 'c'.

F A Stewart
York

Why can't everything stay the same? Why does there have to be change? Etc...

1. The new logo is pretty much the same as the old one, only it's horizontal. There are always problems with new logos so we tried to keep it as close to something whingers like you would recognize. The original logo was designed as a 'modern' thing in 1985 and was considered a little old fashioned (so old fashioned, in fact, that the triangle disappeared in November 1990). I'm sorry you're unhappy with it – lots of other people like it which only goes to show.

2. We're taking the mag in a new, more techie, direction as it is. But we have to maintain a balance and plenty of readers complain bitterly about all the 'techie wibble' and would dearly love to see more games, cheats, POKEs and amusing stories about the team. If you don't like what we write, tell us exactly what you want to know and we'll write about it. 'Make it all Techie Forum' isn't good enough, frankly, and would, in fact, make for a very dull mag.

3. You're entitled to your opinion, of course. But we maintain that a review which regurgitates the instructions and then says 'it was good', is rubbish too. We all do our best to be entertaining as well as informative. Sometimes it works and sometimes it doesn't. And then again we get letters from people who enjoy Simon's style – you're not our only reader and yours is not the only opinion that counts.

4. Oh dear. In fact we have several spell checkers, but I didn't use any of them on the contents page. Sorry. But hey, don't be so smug. If you manage to live your own grumpy life without making any mistakes give us a call and give us a hard time, but no one's perfect, y'know. Lighten up. ***TN***



'Git aht of it. We used to read this magazine when it was all fields. Yeah.'

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multiface. BUY NOW! IT'S BYE NOW...

When the **MULTIFACE** was launched in 1986, it was an outright winner. No one has ever come up with such a powerful, useful add-on. Labeled *the* ***ESSENTIAL CPC COMPANION***, this **MULTI**purpose inter**FACE** proved to be an absolute Godsend for the Amstrad CPC users. Remember the first disk drive on the CPC 464? Suddenly the loading took seconds rather than minutes from tapes. Except that there was not much to load - very little had originally been released on disks and there was no facility to transfer programs from tapes to disks.

THE SAVIOUR

This is one area where the **MULTIFACE** saved everything - literally. The black magic box could stop anything any time and **SAVE** it to disk or tape. When the 6128 came with a built-in drive, it was left again to the **MULTIFACE** to do all the transferring - and to perform other miracles...
So, in case you just came from Mars, what does a **MULTIFACE** do? First, it sits at the back of your CPC, its magic button always ready. Press it, and the **MULTIFACE** takes control!

ACTION!

Once in action, it freezes everything and it displays its own menu. Being fully menu-driven and error-trapped, you'll probably never need the full manual that comes with the MULTIFACE. Most operations are also entirely **AUTOMATIC**, so to *SAVE* a game once you stopped it, you just *name* it, insert *disk/tape*, and press a key. You can then *return* and *continue* the program. If you get beaten later on, just reload from where you saved last and play just from there again! No need to go back to the start all the time. Or even better, the **Multiface** allows you to **POKE**

INFINITE LIVES

listed in this magazine and you'll *never* loose. The MULTIFACE comes with a built-in **TOOLKIT** that lets you inspect/alter/dump the CPC RAM. It also has its own 8K RAM and 8K ROM. Many top programs were written with the aid of the TOOLKIT and the extra 8K RAM. And do you like the **screen shots** in this magazine? They are all produced using the **MULTIFACE!**

When we announced earlier that we were to pull out of the 8-bit market, the surge of interest in the **MULTIFACE** was such, that we had to make many more. And not just the MULTIFACE - we also have the one and only disassembler,

THE INSIDER

that lets you ***see*** and ***alter*** what happens any time anywhere inside a ***RUNNING*** CPC program. This is a unique de-bugging/development aid. It comes on a **disk** and loads inside a MULTIFACE. Press the magic button and the **INSIDER** will di-sassemble, find text/code, dump the CPC RAM to printer, etc. Get it at **HALF-PRICE** for **£7.95**! As this goes to press, we still have plenty of stock of both the **MULTIFACE** and **INSIDER**. However we can't go on manufacturing for ever. The **MULTIFACE** is terrific value, in fact more for the *customer* than for the *manufacturer*... So

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Tasword

Why won't Tasword run on my 464?
Everyone
Everywhere

I'm sorry about the mix-up with the covertape. It seems that due to differences in the workings of the various machines, CPC464 owners may have a problem running Tasword.

So if, when you run Tasword, you get the message:

```
Syntax error in line 17793
Line does not exist in 17793
```

then we can help.

First, you'll need to insert the Tasword cassette, and type `RUN"`. *You will be prompted to press PLAY then any key, and the program will run, and go wrong.*

The problem lies in line 130 of the program, so type `EDIT 130`. *You should have the following line:*

```
130 REM ondisc=(1=1):ON ERROR GOTO 140:
|DISC:GOTO 150
```

You now have to delete the following bit:

```
:|DISC:GOTO 150
```

and type RUN. Hey presto, it'll all work fine.

One easy way to sort out the program for good is to save this new version back onto your covertape cassette. Rewind your tape, take it out of the machine and wind it to the end of the leader tape (so the brown bit appears). Put it back in the machine and type:

```
SPEED WRITE 1:SAVE "TASWORD.BAS"
```

Then simply follow the on-screen prompts. ***TN***

TITLE.BIN. I loaded it and the title screen for *Dam Busters* by US Gold appeared. Then the screen cleared and went back to BASIC. Please can you tell me why this appeared and if there is any chance of the complete game being on the disc.

I buy AA every month, so let me congratulate you on it. You have just the right mix of serious programs and games.
Iain Leslie
Duns, Scotland

As far as we can make out, it's probably just laziness somewhere along the line that meant that the Dam Busters *title screen was still there when they came to duplicate ACE. There is, in short, no chance at all of the whole game being there. Sorry.* ***TN***

Take off prevented

I have a game called *Antiraid*. I have no problem finding the Anti suit, but when I try to take off, it says 'gravity prevents take off'. Could you please help me?
Kenny Thompson
Carlisle

Yes. What you need are the jet boots which are one up and four to the left of the suit (if not there, keep going left, they're not far away). ***SF***

Bring the type-ins back!

I'd like to ask if you could provide subscribers with a cover disc option as it's annoying to send away for a disc and wait weeks to get it.

I should also be grateful if you were to let me know if there's a way to get a screen shot without using a Multiface.
John Daniels
Gourock

We've considered all manner of options with discs and such but the present system is the only really viable one. Sorry.

There are all manner of ways of getting screen shots. We use the Multiface (to which you object) or a rather snazzy video processor connected to a Mac (which costs a fortune).

In days of yore, we used to photograph the screen with an ordinary camera. You need to mess about with it a bit to get the shutter speed right and we also found that some sort of system for keeping out stray light from the room was helpful. We joined two cardboard boxes together to make a tunnel, put the monitor in one end and cut a camera-sized hole in the other to shoot the screen.

There's also a method, if your program is in BASIC, for saving the screen display. Simply insert, in some major loop in your program, the following line:

```
IF INKEY$ = "N" THEN SAVE "filename.scr",B,
&C000,&4000
```

And that should do the trick. ***TN***

Mario? Surely not.

I was looking through some early issues of AA and I noticed an advert in issue 29 for a game called *Mario Brothers*, by Ocean. Is this game the forerunner of the game available on current games machines?

If this is so then is it still possible to get this game as I have told my son and daughter that nearly all games are eventually available in Amstrad format. If I could buy a copy it would strengthen my case for not buying games machines, as I'm a firm believer that our two Amstrads offer more than a games machine any day.
Graham Toseland
Northampton

Well, it did appear, but it wasn't quite what you might imagine. It was a simplistic platform game and not really the sort of thing that would impress anyone who hankers after a games console. Mario™ and everything™ connected™

CLASSIC COLLECTION

I am totally unhappy with the so-called 'Classic Collection'. Not only has it abolished the type-ins and POKEs but it also gives me software I don't want.

You also say you're going to put an assembler on the tape. I don't want an assembler either. Who wants to learn all that machine code gobbledygook? I don't, that's who. Please, please, please don't abolish the type-ins and POKEs. Also, I'd like about two games a month with the odd utility or so. Come on, you gave a word processor away on covertape number 13 and an assembler on covertape number 5. Why do us readers want another one? Tell me.
S McNaughton
Edmonton

More covertape moans

Why did you change the covertape? Why don't you put the POKEs and Type-ins back? Why do things have to change? Why can't everything just stay the same? Why, why, why?
Some more people
Some other places

We've had a load of letters about the new-look covertape from people who like it, too, but...

We decided to drop the type-ins from the tape because we couldn't guarantee they'd be there every month. We decided we'd get more complaints if they appeared randomly than if they never appeared at all. Then, of course, they are called 'type-ins' and should, by their very nature, be typed-in.

As for S's other points: Covertape 13 was published what we in the real world call 'a very long time ago', and number 5 was (not surprisingly) before that. We know that some readers will have these programs but we also know that a lot of readers don't. That's the point of giving away another (different) one.

There are also lots of people who want to learn all that 'machine code gobbledygook'. Apparently (and I know this will be hard for you to believe, Mr McNaughton) there are people who use computers for things other than playing games. It's radical, I know, but we just can't stop them.

No one, it seems, wants to type in the type-ins or to play games without having some sort of cheat. No one, that is, except all the people who used to complain about our putting type-ins and POKEs on the covertape and wasting valuable space.

The bottom line, to paraphrase Abe Lincoln (really badly), is that you can't please anyone, ever. Now don't get me wrong, it's not that I don't care what you want, it's just that you all want different things. So give it a try for a little while, you'll probably grow to love it. After all, the people that hated the POKEs and Type-ins had to put up with them. ***TN***

with him™, his brother™ and his friends™, are all now trademarks of Nintendo™ and there is now no chance whatever™ of their appearing™ on any other format™. ***TN™***

Tuner sandwich

Could you please tell me if there is an adaptor that will let me use a Super Nintendo with an Amstrad monitor. If there isn't an adaptor, could I get a TV tuner and plug that into my monitor so that I could plug the SNES into the tuner?

Orlando Harrison
Grange-over-Sands

We can't think of a reason why you couldn't run your SNES through your monitor. Sadly, though, we're not entirely certain how to connect the two. Perhaps someone who knows...

And if you could find a suitable TV tuner, that would do the job as well. ***TN***

You can't get the wood

I have just got a DDI-1 + Multiface II and a 3.5inch disc drive. I've been told that I can't get games on 3.5inch disc for an Amstrad 464+. Can you help?

D Tarr
Edmonton

Not as such. The advice you received was pretty much correct – you can't get games on 3.5inch disc. What you could do, though, (if only it weren't illegal to copy commercial software) is save your tape games to disc using your Multiface. You could freeze the game when it gets to the title screen and save the frozen game to disc. That is, you could if it weren't illegal. ***TN***

Spent cartridges

Thanks for the round-up of budget games, it was a great help.

I bought a GX4000 for Christmas for my children and I'm having trouble deciding what games to buy. I already have *Pang* and *Switchblade*. Could you help by printing a definitive guide to cartridge games?

And maybe Gremlin could put *Nigel Mansell's Grand Prix* on cartridge.

Michael Leighton
Newport, Gwent

Well, Pang's *about the best there is, but why not try* Navy Seals *(an excellent platform shooty-thing),* Pinball Magic *(a pinball thing), or get a Trojan Light Phaser and try* Skeet Shoot *or* Enforcer *(they're not brilliant, but they're a laugh for a little while)?*

And, yes, why don't Gremlin do just that? And maybe some of the other softies could put some of their games on cart too. ***TN***

POKEr face

After five years of having my 464 I've got a huge stack of games and I've just started reading AA *(Better late than never, I suppose. – Ed)* Then I saw your pages of POKES and I got enthusiastic and read the instructions. It said I would need an interface. A what? Can you tell me what it is, what it does, how much it costs and where I get one. Thanks.

M Camm
Spalding

What it actually said is that you need a Multiface. It's a black box which plugs into your CPC. It allows you to break into programs and change bits of them. They cost 35 quid and you get them from Romantic Robot on 081-200 8870. ***TN***

Fair dinkum and all that

I have been buying your magazine for about a year – I think it contains a lot of beaut information *(Gosh, thanks. – Ed)* and my girls spend many happy hours playing the covertape games.

The thing that peeves me is that because I live in a CPC Twilight Zone *(Doo do do do. – Ed)* 3inch discs and games are non-existent. I look with envy at the vast array of gear you can get in the UK. It's a case of getting a visitor to your land to get some, or dream of what might have been. I could easily get a PC but it seems such a waste, especially when the Amstrad takes care of my humble needs.

I wonder if you could do a feature on the add-ons you recommend for the machine.

A Cusick
Somewhere in Oz

It's nice to know that we've got something over here that other people envy besides ancient architecture and amusing comedy weather. Have you tried contacting any of the advertisers to find out if they'd send stuff overseas? I'll bet loads of them would be amenable. And an add-on feature isn't a bad idea. Keep your eyes open. ***TN***

Another satisfied customer

I had to write to tell you about those nice people at Avatar.

A friend's grandson has a Spanish version of the 6128. The lad thinks I'm the cat's whiskers because I've 'mended' his electronic things in the past. Well, he wanted me to convert his machine to speak English and the only difference in the two machines (apart from the keyboard) appears to be the ROM (Spanish – 40015, English 40025).

I wrote to Avatar about using their advertised 6128 upgrade ROM and three days later (a Saturday), Phil Craven rang me to confirm that this ROM would do the trick. He also told me the best way of going about it.

I see from AA90 that Phil is doing a series of features about upgrades so perhaps this letter may be of interest to other readers who have a Spanish version of the 6128 and to let them know how Avatar have 'behaved above and beyond the call of duty'. (That last remark lets you know that I'm a wrinkly old sweat who knows you should always keep your feet and knees together – no, that's not rude – you work out what mob I was in!)

Thanks for a great mag – I've just renewed my subscription.

Stan Carter
Portsmouth

Extensive research by our resident military historian reveals that you were either in REME or the Poona Rifles. No, just kidding, we've worked it out really. Geronimo. ***TN***

Getting Into Print

If you're a subscriber, you'll have read, last month, a whole heap of helpful advice on getting your letters published in AA (subscribers get a newsletter – another good reason for subscribing).

Some extra special advice, though, is that in future we'll only print letters from people who give us their name and full address. These are perilous times, you see, and we can't be too careful. We'll only print your post town, as always, but if your full address ain't there, we won't print any of it.

Art and all that

I've recently got hold of a Citizen 120D+ printer. As soon as I got it, I started looking for a decent art package, but failed. Could you please help me by suggesting a suitable package (preferably one that animates).

Matthew Harding
Ipswich

Art packages? Well, how about OCP Art Studio (loads of people sell it)? And it animates, too. Hurrah. ***TN***

More slipped disc

Like A Ward of Kent (Reaction AA91) I too used to have hassles trying to get the covertape onto disc – some progs would transfer, some wouldn't. After much fiddling and adjusting of heads and levels I threw the cassette machine away.

Most cassette machines these days are stereo and my solution was to buy a mono cassette deck for about £20. Since then all covertapes have transferred first time and I've had no problems at all.

John Driver
Swindon

Well there you go, then. ***TN***

Write in, right now

Send your letters to:
Reaction
Amstrad Action
30 Monmouth Street
Bath BA1 2BW

We never, ever, ever give personal replies to correspondence. It's not that we don't love you, it's just that we really, truly, honestly, cross-our-hearts-and-hope-to-die-horribly, haven't got the time. It takes all our time to produce the mag and we don't have any left over to write back to you. If you send us an SAE you won't prompt a reply, we just give the stamp to charity. ●

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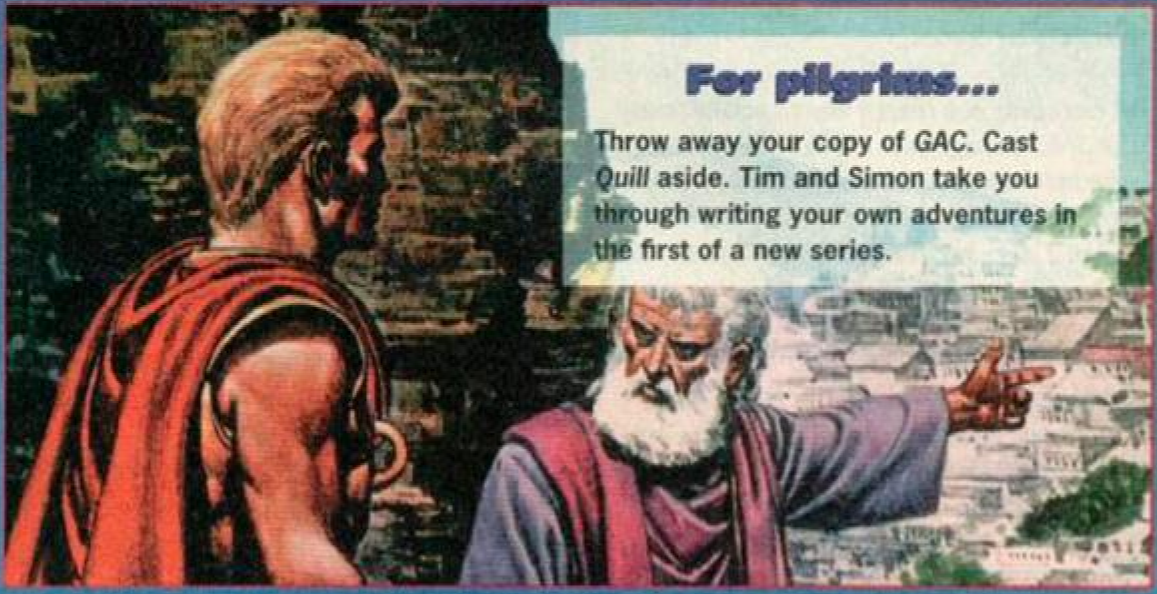
● **Reader calls:** We regret we have to restrict reader calls to afternoons.

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Next Month

Coming to a newsagent near you!



For pilgrims...

Throw away your copy of *GAC*. Cast *Quill* aside. Tim and Simon take you through writing your own adventures in the first of a new series.

For believers...

We'd like to try a little experiment in the power of the human mind. All you have to do is say to yourself 'they will release it, they will release it' over and over again until either a) you achieve nirvana, or b) *Street Fighter II* is finally released and we actually get to review it for you.



Street Fighter II – coming soon to a CPC near you.

For Businesses...

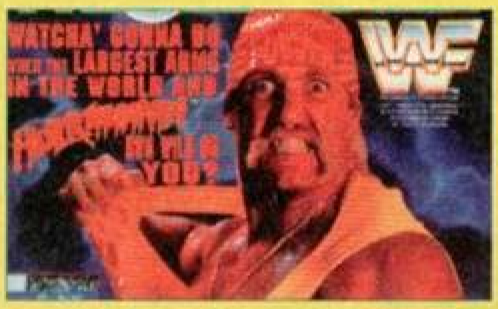
Can't afford a PC? (Or don't want one?) Want to run a business? AA spoke to people who've set up and run businesses with their CPCs and found out just how easy it is. With a complete guide to the hardware and software required, this could be all you need to make your millions.



For Psyschopaths...

We're going to have full-on raging reviews of those mellow, relaxed and friendly games – *Super Cauldron* and *WWF Wrestling*.

And if all goes well, there'll be loads more as well (maybe).



For the cheap...

The usual round-up of public domain software by our resident expert.

For the lucky...

What issue of AA would be complete without our Classic Collection.

For the troubled...

Another instalment of Technical Forum.

June issue on sale May 27th

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